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THE TELEGRAPH SYSTEMS OF THE WORLD.

THEIR RAPID GROWTH, THEIR WIDE EXTENT, THEIR CLOSE COÖPERATION.

By Henry Muir.

THE time required to send a telegram or cablegram and receive an answer is frequently a disappointment, if not an irritation, to people who have never considered the telegraph as anything but a streak of electricity. To send a message from New York to London, for instance, and get an answer in two hours, is quick work. The Western Union office in London estimates the time necessary to send a message from New York to the Island of Lemnos, under ordinary circumstances, as two hours. The same time is estimated by this office for a message from New York to Fernando de Noronha, in the South Atlantic. Mr. W. H. Preece, the courteous chief engineer of the British postal service, mentions, as an example of very quick work, sending a telegram from London to the Cape and receiving an answer in twenty-four hours.

In the British post-office a delay of two days in delivering a European message, and one of six for an extra-European, is not thought astonishing, and the cost will not be refunded if the delay is less.

He who is surprised at this forgets the manipulation which the message goes through. Thus, in the case of a cablegram from New York to London and back, there is a change at Canso, Nova Scotia, from the New York to the Atlantic cable. At Penzance there is a change to land wire for London. In London there is the delivery, the answer and the forwarding, and then a repetition of the changes. If there were no overcrowding of wires, no delays from inattention, no changes, no messages having "right of way," the result would be quite satisfactory to the popular demand for "lightning speed." An incident famous in the telegraphic world shows what can be done in the way of transmission when the wires are free and the operators waiting. Some years ago, at a telegraphic *soirée* in the Albert Hall, London, a feature of the evening's amusement was the sending of a message to Teheran, in Persia, and back. A sending and a receiving instrument had been put up in the hall and connected with the wires of the Indo-European Telegraph Company. This line crossed the Channel by cable to Germany, and then by land lines ran over Germany, South Russia, Caucasus, Armenia, and Persia, to Teheran. At Teheran the wire was joined to a second line of the company, returning to London by the same route.

The lines were cleared for the experiment, and, at a given signal, the key of the sender was pressed by the Prince of Wales. The instant that the button of the instrument was touched, "click" went the receiver! The current had been to Persia and back.

It is only in the case of especially important news that everything is arranged in advance to secure practically instantaneous results. In the case of a race like

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the Derby, or of a match like that between Oxford and Cambridge, the news reaches America in something like fifteen seconds.

This is done easily enough. Beforehand, a certain syllable is fixed for each element in the contest. Thus, in the case of the boat-race, *Ox* stands for Oxford, and *Cam* for Cambridge. As soon as the decision is made, an operator waiting near the racing-ground telegraphs to the cable station at Penzance. The operator at the receiver of the land wire is free to watch for the news. As he receives the first letter, *O*, he shouts it out to a man waiting with his finger on the key of the cable instrument, which is in the same room, and he flashes the letter to New York. Before *X* can be called out,—and that seems to be done instantaneously to one who listens,—and the key of the cable instrument can be pressed a second time, the first letter is in New York. In fact, the crew does not have time to pull up, any more than does the winning horse at the Derby, before New York sporting men have the news.

The delays in the case of the ordinary message are all from manipulation and overcrowding. There are none from examination of contents, from estimating duties at frontiers, from verifying the right to traverse the different countries; that is, the common hinderances to international transit do not exist in the case of telegrams.

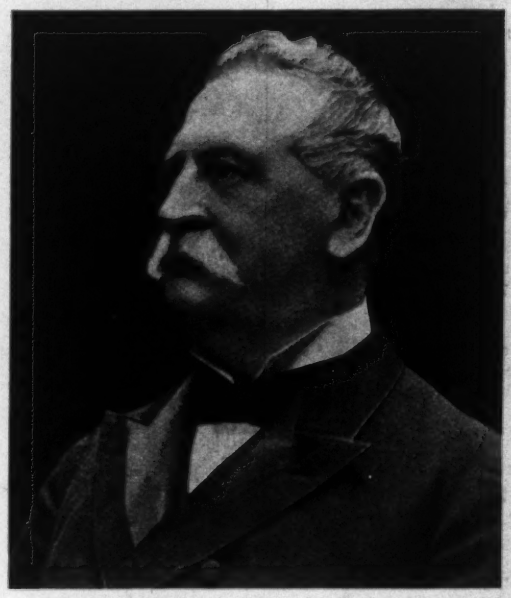
Telegraphy was, indeed, the first interest to conquer these difficulties and to bring the governments of the world together in a union. This International Telegraphic Convention, as it is called, was founded in Paris in 1865. At that date telegraphy had no such extent as it has now. The possibility of an Atlantic cable, sure and efficient, was still in debate. None of the great overland routes had been as yet completed. The telegraphs of each country were isolated, doing very well for internal traffic, but very badly for external. A message which in those days was sent across several boundaries, was subject to an infinite number of annoyances and delays, and its cost was exorbitant.

THE TELEGRAPHIC INTERNATIONAL UNION.

The inconvenience and folly of this was so evident that in 1865 France called a convention of European states, with the object of putting an end to the irregularities. Twenty states replied; and at that gathering they succeeded in forming a convention which, with some changes, still remains in effect.

In 1865 there were but twenty nations represented. In 1890, at the last congress, there were over a hundred delegates present. At present thirty-eight different nations and thirteen private companies are subscribers to the constitution. Thirteen other private companies follow the rules of the union, although not regular members, and several others are indirectly united to it.

This convention, to which governments and private companies have assented, requires that each party shall devote a certain number of direct lines to international telegraphy, and that everybody shall have the right to use them. It guarantees the privacy of correspondence, permits that it be sent in secret language if the sender desires, and arranges that messages shall be transmitted in the order of their importance. It aims at securing unity of rates each way between every two points, dictates a monetary standard for international tariffs, and makes all regulations which will insure quick transmission and delivery. At the successive conferences, held every five years, all changes in and additions to the original convention found necessary are made. In order to have a headquarters to which and from which all matters concerning the Telegraphic Union could be sent, the congress established the *Bureau International des Administrations Télégraphiques*. Bern,



GENERAL THOMAS T. ECKERT, PRESIDENT AND GENERAL MANAGER OF THE WESTERN UNION TELEGRAPH COMPANY.

From a photograph by H. E. Mendelssohn, 545 Fifth Avenue, New York.

Switzerland, was selected as the home of the Bureau.

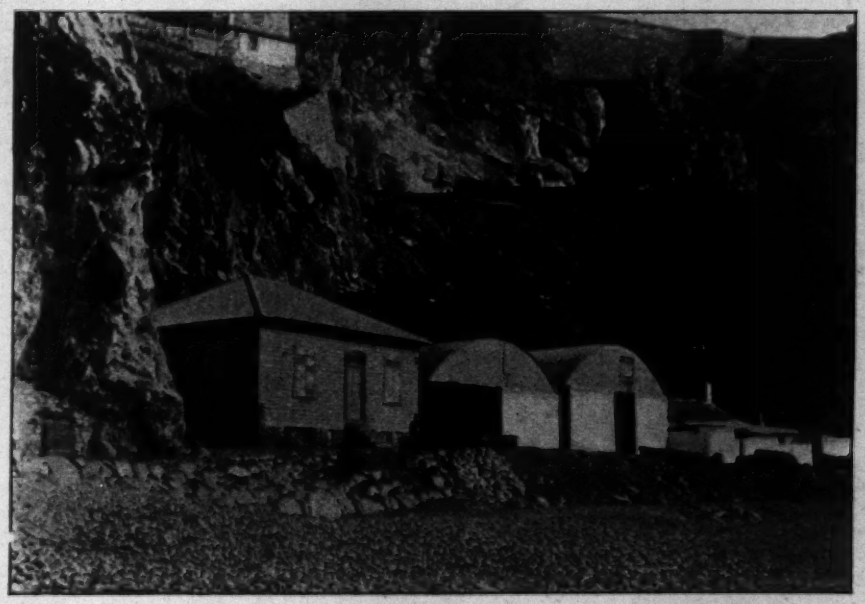
The advantages of this union can only be fully appreciated by seeing what it does in the case of an international telegram. Suppose, for illustration, that a telegram should be sent taking in the entire telegraphic field of the world, touching at the most remote points, but never leaving the land line or the cable; that is, never being transferred by post or messenger from one point to another. Starting at San Francisco, let the route run across the continent to New York by Vancouver and Montreal. From New York let it follow the world's northern telegraphic boundaries through England, Norway, Sweden, Russia, and Siberia; going south, touch at Nagasaki in Japan, Hong-Kong in China, Singapore, Java, and Sumatra, cross Australia, and land in New Zealand; returning to Singapore, let it cross to Bombay, make a detour to Ceylon, then on to Aden, round the Cape of Good Hope, leaving the line at Zanzibar to call at Seychelles and Mauritius, mount the West African coast to St. Louis in Senegal, cross the South Atlantic to Pernambuco, traverse South America from Buenos Ayres to Valparaiso, and then go north through Mexico to New York.*

* This imaginary route was submitted to Mr. Preece of the British postal service by the writer, and returned with assurance that it could actually be traversed as outlined, at a cost of about eighteen dollars per word. The time required would be something like fifty-six hours.

THE COURSE AND EXPERIENCE OF A TELEGRAM ROUND THE WORLD.

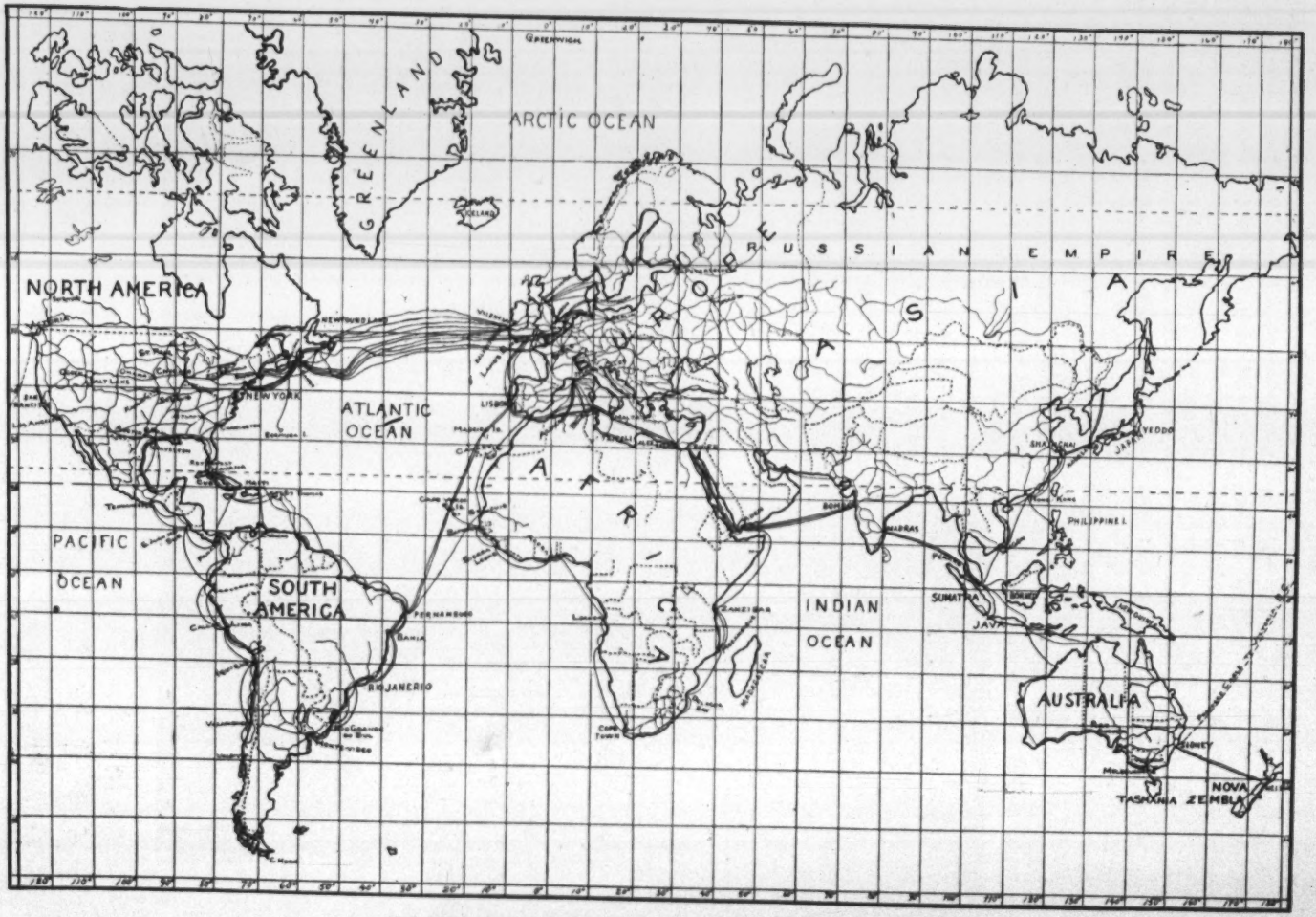
On this route the message would pass through the hands of the private companies of Canada and the United States, over the public wires of England, into the care of a private Danish company, the Great Northern, which would deliver it to the Russian state telegraph. Carried by the latter to Vladivostok on the Pacific, the same Danish company transports it to Hong-Kong, and delivers it into English hands. Private English companies, combined with colonial and Indian government telegraphs, carry it to New Zealand and thence to Aden. Seven different companies carry it around the Cape of Good Hope and across to South America, where its control is alternately private and governmental, until it falls into Western Union hands.

Every one of these various organizations guarantees its passage without inspection, and does its utmost to secure a rapid and exact transmission.



CABLE STATION AT GIBRALTAR.

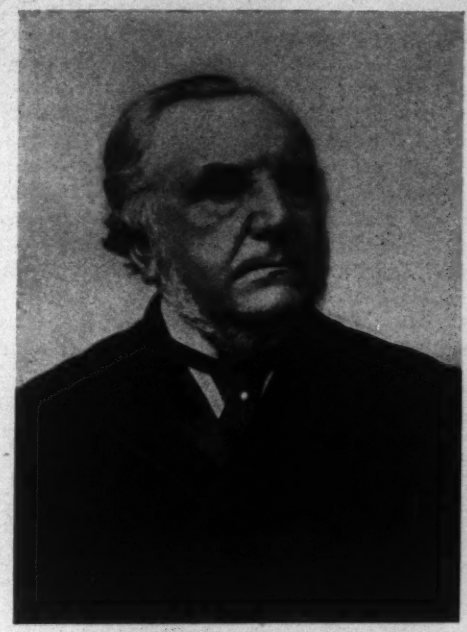
Such a result alone would be a great example of the value of the international union. But it does more. It has made it possible that the cost of the telegram should be made known in advance, and that instead of a list of the charges by the various governments and companies concerned, in the puzzling moneys which they use, being given to the sender, he should



MAP SHOWING THE TELEGRAPH AND CABLE LINES OF THE WORLD.

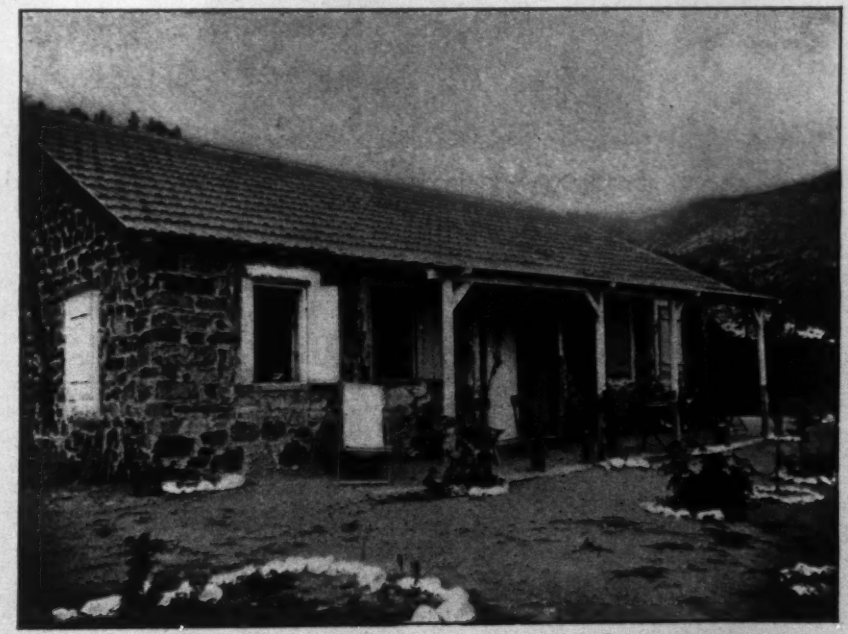
have the total in a currency sufficiently well known the world over to be easily understood.

On this imaginary route seven kinds of money are used—cents by Americans and Mexicans, pence by the English, krones by the Danes, copecks by the Russians, rupees by the Indian government, reis by the Brazilians, pesos by the Argentines. Now, to harmonize such discordant sums the convention decrees that the franc shall be the monetary basis of the union. Each country thus estimates the value of its currency in francs, and sends the result to the *Bureau Télégraphique* at Bern. Thus a shilling is valued at 1.20 francs; fifty kreuzers at one franc; a drachma at one franc; a krone at from .74 to .80 of a franc; four hundred reis, a franc; a piastre, 3.75 francs. Each member of the union also sends to Bern its tariff rates for international messages, which, as a rule, provide that nothing less than a certain fixed sum will be taken, and that each word will be charged at a certain rate. The Western Union will accept for a foreign telegram nothing under seventy-five cents, and the charge per word to London is twenty-five cents. Great Britain accepts nothing less than tenpence (twenty cents) for a foreign message; Germany, five pfennigs (twelve cents); Belgium, fifty centimes (ten cents); Italy, a franc (twenty cents).



SIR JOHN PENDER, CHAIRMAN OF THE EASTERN AND THE EASTERN EXTENSION TELEGRAPH COMPANIES.

From Bern these rates are sent to the various governments and companies, and used to make up their tables of charges for foreign telegrams. For example, at New York you will be told immediately on asking that it will cost you $1.75 per word to send a message to Java; $2.25 per word to Japan; $1.64 to Malacca; $1.33 to Burma; $2.45 to Mozambique; 45 cents to the Azores; $1.27 to Ceylon; 32 cents



A SUMMER STATION IN THE ISLAND OF CYPRUS, OPEN FROM MAY TO NOVEMBER.

to Norway; 33 cents to Spain, etc. But evidently no such accuracy would be possible without international coöperation.

At least four different languages are spoken by the officials who handle the above telegram—English, Danish, Russian, and Spanish; but it goes around the world in English. Since 1891 it could be sent from any office of the states of the telegraphic union in any one of the following languages: German, English, Arabic, Armenian, Bohemian (Czech), Bulgarian, Croatian, Danish, Spanish, Flemish, French, Greek, Hebrew, Hollandish, Hungarian, Illyrian, Italian, Japanese, Latin, Malay, Norwegian, Persian, Little Russian, Portuguese, Roumanian, Russian, Servian, Siamese, Slavonian, Swedish, Turkish.

It is understood, of course, that all these languages are written in Latin characters, otherwise it would be impossible to transmit them, either by the Morse and Hughes instruments, or by the mirror galvanometers and siphon recorders of the submarine cables. By writing in Latin characters, then, a message in Japanese can be sent around the world, just as one in English. The Japanese themselves are obliged to send their messages in this way, even within the boundaries of their own country.

W. H. PREECE, CHIEF ENGINEER OF THE BRITISH POSTAL AND TELEGRAPH SYSTEM.

From a photograph by Humphreys, Carnarvon.

In certain countries, if the language employed is neither European nor Latin, the message costs more. Thus, in Great Britain, it is charged for at the rate of five letters to a word.

TELEGRAPH CODES AND CIPHERS.

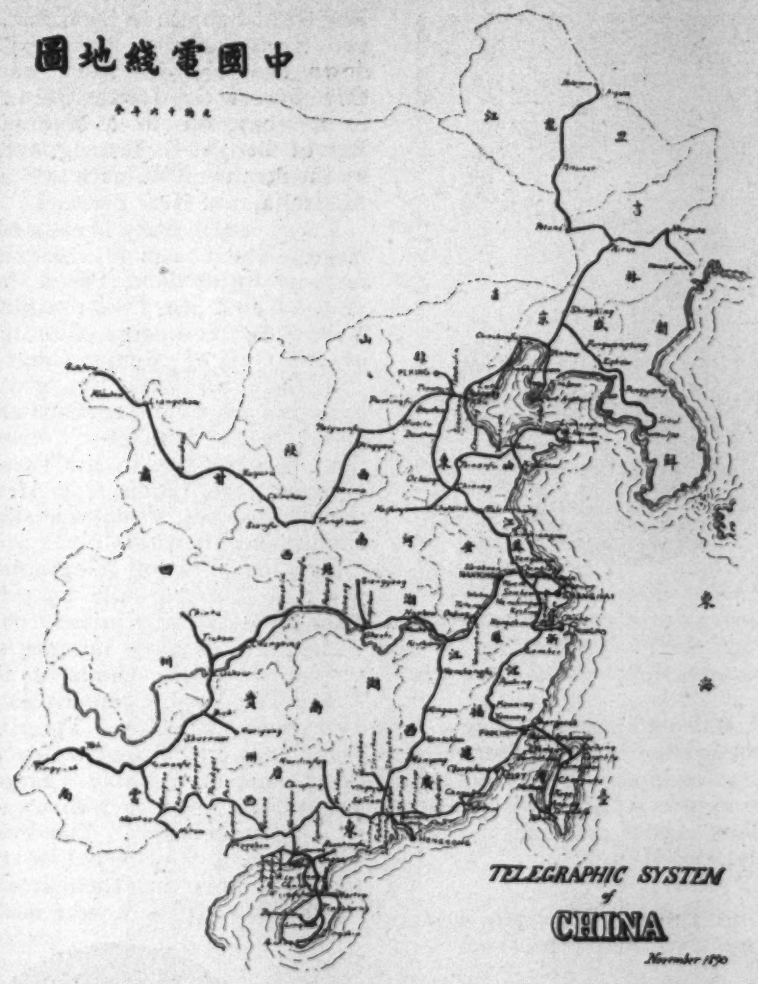
The union provides for secret language of two kinds: code and cipher. Code, or prearranged, language is composed of words the context of which has no meaning, but each word of which stands for a phrase or a sentence. Any two persons may arrange a code for private use. Large numbers have been published, some adapted especially to a particular business, others to the affairs of daily life. One of the most important undertakings of the Telegraphic Bureau of Bern has been the arrangement of an official code. This was decided on at the conference in 1890, but was not completed until this year. This code contains some two hundred thousand words taken from the German, English, Spanish, French, Dutch, Italian, Portuguese, and Latin languages. It is to become obligatory in Europe three years hence, but will remain elective for all states of the union out of Europe.

As each word in the address of an international telegram is charged for, it is customary to register an abbreviated address if one has much business. Thus, "Aide-de-camp, New York," is an abbreviated address for "S. S. McClure, 30 Lafayette Place, New York City." In many countries the registering of such an address is taxed, though it is not in the United States. In Egypt it costs $1.30; in Denmark, $2.00; in Bulgaria, $4.00; in Brazil, $5.00; in Great Britain, $5.25; in Austria, Spain, France, and Russia, $8.00; in the Dutch Indies, $12.00; and in Turkey, $20.00.

The cipher telegrams are those made up of groups of figures having a secret meaning agreed upon between two parties.

Telegrams in secret language are not accepted for all points, in spite of the union. Thus they will not be taken for Bulgaria, Roumania, Servia, Tripoli, Turkey, and a few other points.

Many other decided advantages have come from the international union—insuring delivery, prepaying answers, registering messages, insuring that the message will follow the person to whom it is sent in case he has moved, refunding money if the telegram is too long delayed or is bun-

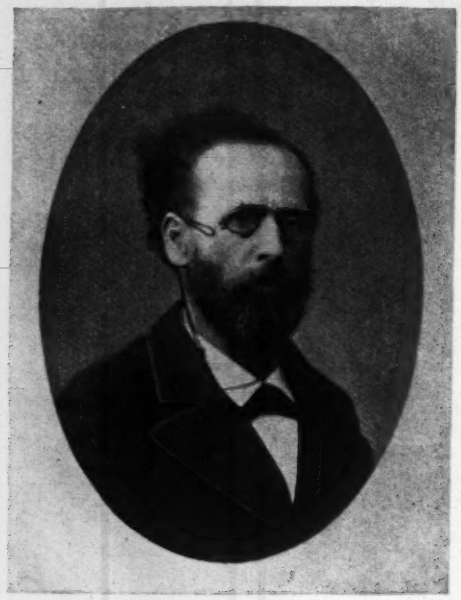


gled in sending, allowing multiple addresses for one message. Not that all these conveniences are perfect in all countries. Thus, in the matter of refunding money for telegrams which plainly have failed to give the idea desired, because of errors in sending, or which have been seriously delayed, there is still considerable variance. Bulgaria, Spain, Greece, Italy, Norway, Portugal, Russia, Turkey, and a number of South American countries refuse to refund. In Servia, if it can be proved that the fault is that of a Servian agent, the sum is returned. The Western Union refunds if the fault is in its service, but it is responsible for no loss to the sender on account of delay or mistake. This company also asks that all important messages be repeated, for which one-quarter of the first price is charged. The regulations are about the same in Great Britain.

These international messages are paid for at the office from which they are sent, and once a month there is a settlement between the companies interested.

The money with which different countries and companies regulate their affairs differs, though the aim is to do all international transactions in francs. Austria, Bulgaria, Spain, France, Greece, Hungary, Italy, Portugal, Roumania, Russia, Servia, Switzerland, Turkey, and a few others use the franc exclusively. Brazil pays the Brazilian Submarine Company in national money. Cochin China uses the franc with Siam, Tonquin, and Annam, and the piastre with the Eastern Extension Company. Egypt employs English money with the Eastern Extension Company.

The payment for telegrams was formerly made, in many countries, by telegraphic stamps similar to postage stamps. They are still used in Belgium, Holland, and British India. The first country which adopted this custom was Spain; Germany, Bavaria, France, Great Britain, Italy,



DR. ROTHEN, DIRECTOR OF THE INTERNATIONAL TELEGRAPH BUREAU AT BERN, SWITZERLAND.

From a photograph by M. Vollenweider & Son, Bern.

Switzerland, Würtemberg, and others followed, but the system is falling into disuse, and is about to disappear. In certain countries telegrams are stamped with postage stamps. This is the practice in Great Britain, Italy, and Hungary.

NUMBER OF MILES OF LINE IN THE WORLD.—NUMBER OF MESSAGES SENT.

The carriers of the international and national messages of the world include 601,142 miles of land lines and 153,649 nautical miles of cable. Where the land lines run, all the world knows. They pass by our doors, criss-cross the sky as we look up in crowded streets, follow the railway tracks, climb over our hills, run into our country towns, fly into the wildest and most remote forests, and turn up in the most unexpected places—13 miles in St. Helena, 271 on the Gold Coast, a line across Zululand, another mounting 12,545 feet above sea level to Lake Titicaca, many miles in Madagascar. Even the savages of Africa, the camel-drivers of Persia, the rabbits of Central Australia, the unclad Malays, know the telegraph pole and line.

The cable is less familiar, but its circuits are no less daring. Look over a recent cable map. The red lines, which mark the routes, form a bewildering tangle. Twelve of them cross the Atlantic from Europe to North America, three swing from Land's End to Lisbon, three from Spain to Brazil, two from Gibraltar to Alexandria, four down the Red Sea from Suez to Aden, three across the Indian Ocean from Aden to Bombay, two from Madras across the Bay of Bengal to Penang, and thence on by the Straits of Malacca to Sumatra, Java, Australia, and New Zealand.

Every small body is crossed by one or more. The coasts of the continents are festooned with them. Even the cable map of the China Sea, Formosa Strait, and the Yellow Sea compares favorably with that of the Gulf of Mexico; and every now and then, all over the globe, the red lines run off to distant islands, as if they pitied their loneliness. From Halifax there is a red line to the Bermudas, from Lisbon to the Azores, from Hong-Kong to the Philippines, from Zanzibar to Seychelles and Mauritius.

This network of telegraphs is owned, when on land, usually by governments; when under sea, by private parties. The United States owns no telegraphs. Her system is in the hands of the Western Union Telegraph Company and the Postal Telegraph Company. The Postal Telegraph was established to coöperate with the Commercial Cable Company, but it has proved itself a wide-awake rival of its big predecessor. The lines in Great Britain were transferred to the state in 1870, and since then their growth has been rapid. In 1893 there were in the kingdom

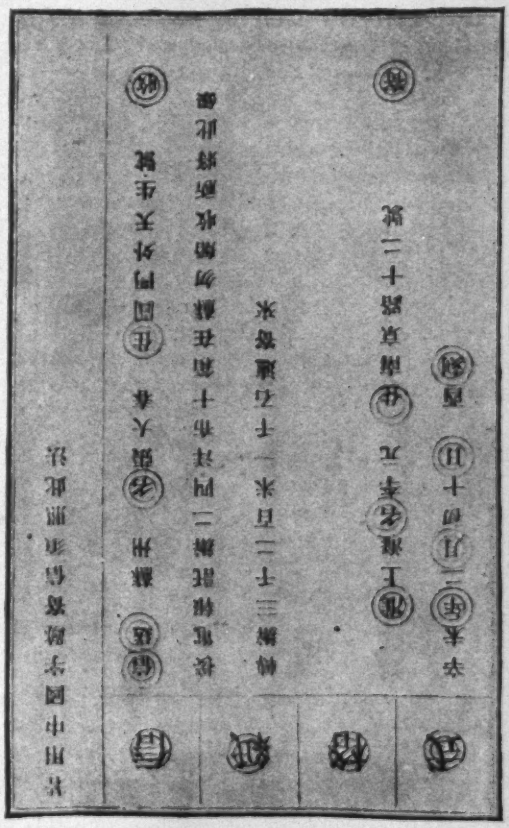
HIS EXCELLENCY IVAN DOURNOVO, MINISTER OF THE INTERIOR, AND DIRECTOR OF THE TELEGRAPHS OF THE RUSSIAN EMPIRE.

209,046 miles of line, of which 22,771 were private. Over these in the year ending March 31, 1893, 69,907,848 telegrams were transmitted. England pays an annual interest of £298,888 on the money invested in her telegraphs. As her net revenue has usually been less than this, she has an annual deficit. In 1893 there was £166,682 lacking to balance the expenses.

In the British colonies the telegraphs are, as a rule, under government control. Canada is an exception to most of the British colonies, the telegraph lines there being mostly private; 2,699 miles out of 31,841 belong to the state.

On the Continent the government control of telegraphs is about complete, Austro-Hungary, Belgium, France, Germany, Greece, Italy, Portugal, Sweden and Norway, and Switzerland owning the lines, excepting those belonging to the railroads. Denmark possesses 2,816 out of 3,674 miles. Nineteen-twentieths of the Russian system is the state's.

Government control prevails in Japan. Persia owns some 3,400 miles of single wire lines. There are also in Persia 675 miles belonging to the Indo-European Telegraph Company, and 415 miles on the Russo-Persian frontier belonging to the same company.



A CHINESE TELEGRAM.

Brazil controls her lines; Argentine Republic and Chili, perhaps half of theirs.

With a few exceptions, the state telegraphs do not pay expenses. The principal deficit is in the internal service, the international service helping rather to balance the budget. But the rates are much lower on the state lines than on private lines, as a rule. In the United States the minimum rate is twenty-five cents for day, twenty for night, messages of ten words, with an addition of about one-fifteenth of this rate for an extra word. In Germany the minimum is twelve cents, with an extra word rate of one and a quarter cents; in Belgium the rate is ten cents for the first fifteen words; in Spain, twenty cents for fifteen words; in France, ten cents for from one to ten words; in Great Britain, twelve cents for the first twelve words, and a cent for each additional word. But in all these countries the distances are much shorter than with us; and while the words of the address are free in the United States, they are counted in foreign countries.

In the case of state telegraphs, too, the capital remains stationary. "Thus, in 1877," says Mr. Preece, "the capital of the Western Union was $22,000,000; that of the British post-office was £10,000,000. The capital of the former is now $123,000,000, while that of the latter remains virtually the same. Scarcely a single vestige of the old telegraph companies' systems purchased by the state in this country now remains. Whence, therefore, this splendid system of cables, underground lines, and new poles in this country, extending everywhere, and transacting an annual business of £2,500,000, instead of the £600,000 handed over to us? It has all been paid for out of revenue. The government keeps no capital account."

The ownership of cables presents a strong contrast, only 16,171 nautical miles being in government possession. France owns the most—4,053 miles; Germany has 1,761 miles; Great Britain and Ireland, 1,759; India, 1,974.

The remaining mileage of this great system (137,478 miles) is in the hands of twenty-seven private companies, the three largest of which are the Eastern Telegraph Company (26,028), the Eastern Extension, Australian and Chinese Telegraph Com-

pany (16,132), and the Anglo-American Telegraph Company (10,400).

HOW THE DANES SLIPPED A CABLE INTO CHINA.

It is commerce and competition which explains, as a rule, this extraordinary system of land and cable lines. They have been laid to meet the demands of business, and, for the most part, of a business already assured. Not that there are no examples of that admirable daring which, foreseeing a chance, makes its venture, preferring to create a demand rather than to follow one. A remarkable case of just such a venture was the laying of the first cable along the Chinese shore in 1871.

Russia had finished the land line across Siberia—the line which, it will be remembered, was intended to be part of the route so long projected into the United States by Bering Strait. But the American end of the project had failed, and Russia found she had an interminable stretch of line across her barren steppes, and now had nothing to attach the end to. In fault of anything better to do with the straggling terminus, it was carried to Vladivostok.

The Northern Telegraph Company of Denmark saw the possibility of utilizing this end for a European communication with China and Japan. Not that China and Japan had expressed a desire for such a union. The wily Danes took care not to ask permission, but slipped the land end of their cables into shore in inoffensive drain-pipes, and quietly made their connections until they had a cable running from Hong-Kong to Amoy, Gotzlaff, Woo-Sung, Nagasaki (Japan), and connecting with the land line at Vladivostok.

When the Chinese wakened up to the presence of the cable, it was too late to object. They simply professed themselves utterly sceptical of its usefulness, and refused to have anything to do with it. However, they soon had a practical demonstration of its capabilities. An Oriental more bold than his compatriots, resolved to act on the price of rice telegraphed down to Shanghai from Pekin, and to buy up a quantity. He did so, and made a big sum. Soon after, a lottery drawing came off in Pekin, in which many residents of Shanghai were interested. The lucky numbers were telegraphed down, but the majority of the holders felt it unorthodox to trust to the impious Western contrivance which disdained time and space, two things which the Imperial Dragon himself had always respected, and they let their scepticism go so far that they sold their tickets for a song to more progressive gamblers. The next week, when the recognized post arrived, the report of the telegraph was confirmed. The new contrivance could not have had a more impressive advertisement.

The Great Northern Company, in venturing into Chinese waters to pick up the useless end of the Russian land line at Vladivostok, left a floating end at Hong-Kong, but immediately another daring company came on to meet it.

The year before, 1870, the famous Eastern Telegraph Company, the cable company which to-day possesses nearly twice as many miles of cable as any other in the world, had laid its lines from Land's End to Gibraltar, thence to Malta, and on to Alexandria. It had also laid a line from Aden to Bombay. On the other side of the Indian peninsula, the Eastern Telegraph Company, to-day the second largest in the world, had picked up the end laid down at Bombay, and had run a cable from Madras to Penang, and from Penang to Singapore. When, the next year, the Great Northern appeared in Chinese waters, it was an easy matter to run up to Hong-Kong to meet it, and thus was furnished the last link in the tremendous circle which, beginning in England, crosses the north of Europe and Asia, passes down the eastern seas of Asia, and through the Gulf of Bombay, the Indian Ocean, the Mediterranean Sea, and the east Atlantic, back to England.

A BIT OF HEROIC WORK IN TELEGRAPH CONSTRUCTION IN AUSTRALIA.

It was the year before the Eastern Extension carried its cable to Hong-Kong that it concluded to go on to Australia, on condition that one, or all of the colonies combined, would lay a land line across the continent to meet it. This offer was accepted by the South Australian government. This colony then numbered 170,000 inhabitants; it was in debt heavily for railroads and telegraph lines in the settled parts of its territory, but it bravely set aside the money for the new undertaking.

The work was begun early in 1870. The history of telegraphs does not include another so dramatic chapter. All but two or three hundred miles of the two thousand from Adelaide on the south to Port Darwin, the cable terminus on the north, was through a land of either the worst reputation or utterly unknown, save from the reports of the one explorer who, with in-

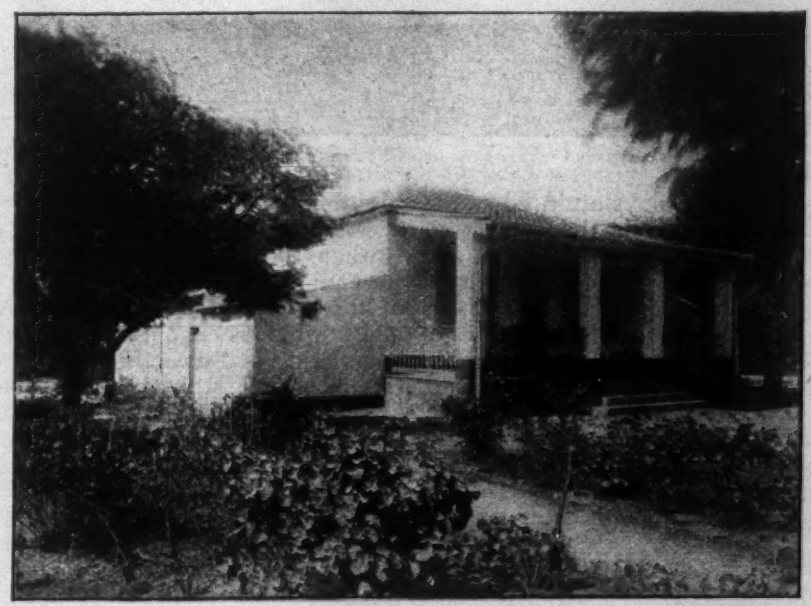
finite risk and hardship, had traversed it nearly ten years before.

The expedition was to be baffled by nothing, however. They carted every inch of their wire, most of their poles, all of their supplies, across a country often waterless, and so hot that the thermometer burst and the pork melted in the brine. They saw their cattle die of hunger and thirst. They were forced literally to crawl through miles upon miles of scrub of the most exasperating character. The natives harassed them constantly, stealing their supplies, threatening their finished work, and rigging up their insulators as spear-heads, to use when the native boomerangs were not up to the occasion.

The northern portion of the work was once abandoned, so hopeless did it seem. Again terrific floods drove the expedition entirely from the field. In spite of the loss and discouragement, the line was finished in two years and a half, and after October 22, 1872, the London papers were publishing daily despatches from Australia. On November 15, 1872, a grand banquet was held in London, celebrating the completion of the work, and at it was read a telegram of thanks in response to one of congratulation which had been sent to Adelaide just two hours before.

It was in this same period—between 1870 and 1874—that the skeleton of the world's cable system was laid. In this time the Eastern Extension went on to Java (1870), thence to Australia (1871), and on to New Zealand (1874). The Brazilian submarine connected Lisbon and Pernambuco, and the Western and Brazilian the points on the east coast of South America, in 1874, and the next year there was a cable off the west coast, thus completing the main features of the present system.

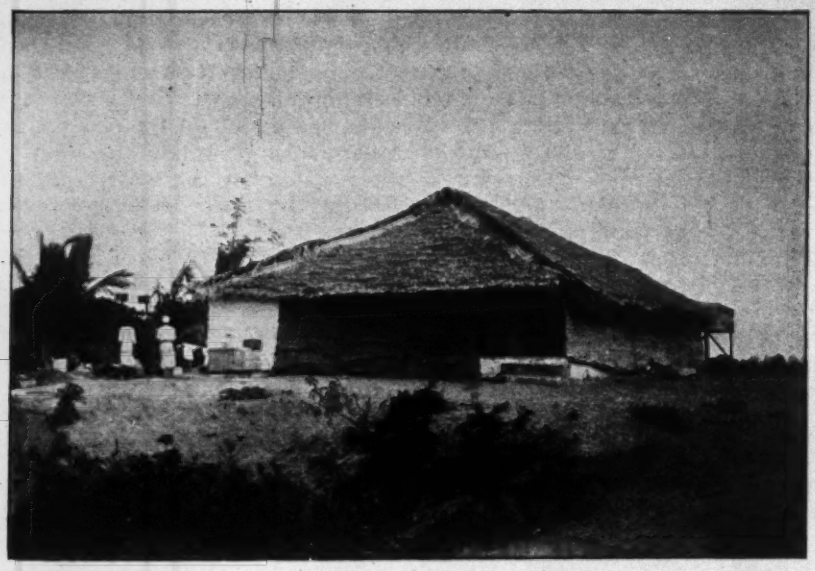
This network of wires has stolen around the world almost noiselessly, and at present the most astonishing extensions go unnoticed. I heard an eminent telegraph administrator speak of this general indifference almost ruefully not long ago. "Nobody knows what we do," he said. "Here we are just about making connections with Borneo, and all that will be said about it will be in the notices in the telegraph stations—'Messages received to Borneo after such and such a date.'" It is typical of the whole history of telegraph extension.



CABLE HOUSE AT BONA, ALGERIA.

In spite of the fact that the land lines have frequently been carried over the wildest countries, the steppes of Siberia, the plains of Australia, the forests of Africa, and that the greatest hardihood has often been endured in construction, probably the worst enemy encountered has been and is the small boy who pegs stones at the insulators.

So true is this, that it is the custom on lines running through new countries to put up *old* insulators. The fever runs its



TELEGRAPH STATION AT MOMBASA, IN BRITISH EAST AFRICA.

course, and when the boys are tired of the sport the company repair the ruins with new crockery.

In certain cases, iron-covered insulators are used. This is the case in Persia often, for there the camel-drivers do the damage. Passing along the road by which run the lines, they are exactly at the right height on their camels to clip the insulators with their sticks. Persian human nature would have to be vastly different from English to resist such a temptation, and it is not; so the company puts up an iron-covered insulator.

In South Africa a difficulty of the first lines is that the natives steal the wire to make bracelets and nose rings and other ornaments. This has been prevented in certain cases by carrying along a supply of a cheaper and more attractive wire with which to buy them off. In landing cables the same difficulty has been experienced, the small boy or the curious native cutting off fragments. But here the remedy is simple, and one dose is sufficient—it is to turn on the current.

THE NUMBER AND KIND OF MEN REQUIRED TO OPERATE THE TELEGRAPHS OF THE WORLD.

At the head of this vast system of telegraphs, land and sea, is some of the finest scientific, organizing, and administrative ability in the world. Sir John Pender at the head of the Eastern and Eastern Extension Companies, Sir James Anderson, Nielsen of Norway, Thomas T. Eckert, the president and general manager of The Western Union; Arten Pacha of Egypt, Dr. Rothen, the director of the International Bureau; Mr. W. H. Preece, chief engineer of the British service, are but types of the ability which is engaged in various ways in completing and directing the system.

Almost invariably these men possess the broadest culture, the largest knowledge of the world. They show, no class of men better, how, at the present moment of the world's history, her "biggest men" are in commercial and industrial undertakings; that there the finest diplomacy, the greatest ideas, the best statesmanship are at work.

To man the world's telegraph system, a large demand is made upon the brightest youth of the world, for in no department of the business are the stupid available. A quick mind, a prompt action, a ready hand are essential to catch, transfer, and send on electric flashes. No figures are to be had to show the total number of persons engaged, but Brazil employed in 1890 for her lines, 1,418 persons; British India, 6,611; France, in her Continental and Corsican lines, 58,001; Great Britain and Ireland, 117,989; Japan, 7,140; New Zealand, 1,154; Roumania, 1,648; Spain, 3,644; Switzerland, 1,948; the Philippine Islands, 473.

In this same year Porto Rico had open 38 offices; Russia, 3,885; Norway, 354; Greece, 178; Germany, 17,454; Egypt, 172; Cochin China and Cambodia, 70; Belgium, 942. In 1894 the Western Union had open 21,166 offices.

The telegraph *personnel* is usually native.

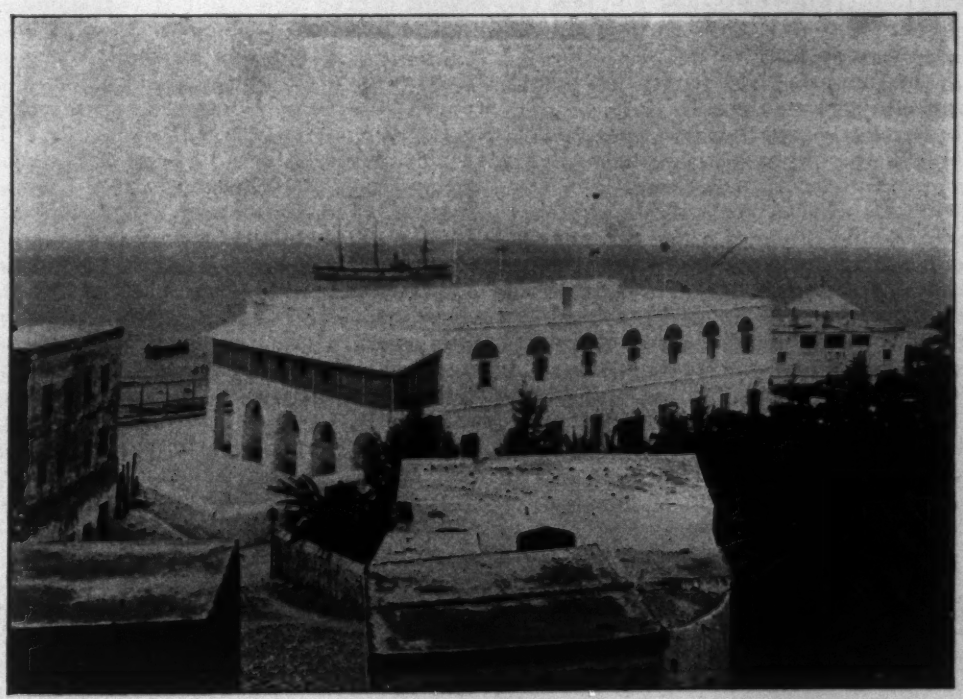
Thus in Persia, where there are about 3,400 miles of single wire worked by the government, the staff is entirely Persian ; in Japan and in China it is native. In the latter country the Danes have been the instructors. The success of the Danish Company in laying their cable along the coast, induced them to attempt to run wires inland. They made a successful beginning, but were stopped oddly enough. There are no burial grounds in China, each family making a sepulchre for its dead upon its own premises. Dead ancestors are so reverenced that a shadow upon the grave is looked upon as an insult which must not be passed by. Now, when the Danes began to put up poles for their wires, the shadows were sure, at some time of the day, to fall upon the grave of some Celestial's ancestor. There were constant disputes between workmen and natives, and the enterprise was seriously interrupted for a time.

However, the convenience of the telegraph became at last so evident to the Chinese that the government decided to go on with the work, and since even the shadows on the ancestors' tombs have not prevented their setting up poles. The native staff received its first instructions from a telegraphic school started by the Danes, to whom, also, the Chinese owe their telegraphic alphabet.

As the Chinese use over thirty thousand characters in writing their language, it was by no means a simple matter to provide them with an alphabet. The company employed to solve the problem a Danish professor of science, who had studied Chinese as a recreation. He selected six thousand characters in common use, and to each of them applied an arrangement of dots and dashes, thus giving to each character an appropriate telegraphic symbol. A little telegraphic dictionary was then printed, each character being accompanied by its appropriate telegraphic sign.

At first, in writing out messages, the telegraphic substitute was used, and the receiver of the message was obliged to read it by consulting his dictionary. As the lines had a rather limited *clientèle* then, this was possible. Since, the messages are written out in native characters, as in other countries.

The good opinion the Chinese now have of their venture is shown by the present extent of the system. Pekin is connected with Tientsin, with the principal places in Manchuria, with the Russian frontier on the Amur and the Ossvri. All the chief cities in the Empire are in direct communication with the capital and with each other. From Canton a line runs to the capital of the Yonnen province, and beyond to the border of Burma. In 1892 the Chinese and Siberian lines in the



TELEGRAPH STATION AT ZANZIBAR.

Amur Valley were joined, so that China is now in direct overland communication with Europe.

RAPID GROWTH OF THE VOLUME OF BUSINESS—REDUCTION OF RATES.

The amount of telegraphic business done annually is something astonishing. The number of messages reported in 1891 to the *Bureau International* was 295,678,651. The figures are still weightier if we consider the short time it has taken to reach them; that is, if we remember what a new thing the telegraph itself is, how the first practical telegraph dates from 1837, Morse's first message from 1844, the first English telegraph company from 1846; that in 1851 the whole number of messages sent in Great Britain was less than fifty thousand; and that the first cable, from Dover to Calais (a cable still in use, by parenthesis), dates from 1851, and the first Atlantic cable from 1858.

The growth of business has been rapid since the completion of the international circuit. Thus, in 1870, in Great Britain the number of telegrams handled was 8,606,000; twenty years later it was 68,622,117. In 1870, in the United States the traffic amounted to 11,500,000 messages; in 1890, 59,148,345. The inland traffic in India in the last twenty years has increased from 684,388 to 3,441,637 messages, and that between that country and Europe by all routes from 50,462 to 193,782. Everywhere the increase has been, if not always so marked, yet considerable.

Of course the lowering of rates explains principally the increase in business. This has been rapid the world over. The first tariff book of the Western Union Company gives the rates for 1866, the year of the consolidation of the companies of the United States. According to it, the rate for a ten-word message from New York to Portland, Oregon, was $10.20, with 77 cents for each additional word; to Chicago it was $2 05, 15 cents for an additional word; to Washington, 75 cents, six cents for an additional word; to Halifax, $2.63, 19 cents for an additional word. The maximum rate between points in the United States at that time was $14.70; now it is $1.00.

When the first direct communication was made between England and India, the rate per word was five shillings; now it is three shillings eight pence, *via* Turkey. The Atlantic cable of 1866 charged $100.00 for twenty words. This afterwards was dropped to $50.00 for twenty words. When competition with the first Atlantic cable began, the price of messages was brought down from $5.00 per word to $7.50 for ten words. This competition has been increased until now the rate is twenty-five cents per word.

The capital engaged fits the figures above. The Western Union has a capital of $125,000,000, paying a yearly dividend of from five to seven per cent.; the Eastern Telegraph, over $30,000,000; the Eastern Extension Company, nearly $20,000,000; the Indo-European Telegraph Company, $2,250,000. The amount invested in government telegraphs, there is no means of knowing. In many countries it is not possible to find out even the annual receipts and expenses of the state telegraph, since they are so mingled with the postal accounts.

Vast as the telegraph system of the world is, it is not complete. There is no way to reach Samoa but by post. None other to Alaska. The telegraph wire does not go everywhere. But it is fast lessening the number of places to which it does not go. A cable was finished last year from Singapore to the island of Labuan, on the north side of Borneo, and from there to Hong-Kong, which will consolidate the service of the Eastern Extension Company in the East. A submarine cable between Australia and Vancouver Island and San Francisco, touching at New Caledonia, the Fiji Islands, Samoa, and the Sandwich Islands, has been planned, and the first section, Queensland to New Caledonia, is laid. Every month sees new short lines running here and there by land or sea, and it is safe to say that no point on the earth's surface will remain long unconnected after it has proved itself of some use to the civilized world.

THE MAN OF MONCEAUX.

A STORY OF ADVENTURE.

By Stanley J. Weyman,

Author of "A Gentleman of France," "My Lady Rotha," etc.

IN the month of August the king went on a visit to Monceaux, where he spent two weeks in such diversions as the place afforded. He invited me to accompany him, but on my representing that I could not there—so easily as in my own closet, where I had all the materials within reach—prepare a certain report which he had commanded me to draw up, he directed me to remain in Paris until it was ready, and then to join him.

This report, which he was having written, not only for his own satisfaction, but for the information of his heir, took the form of a recital of all the causes and events, spread over many years, which had induced him to take in hand the Great Design; together with a succinct account of the munitions and treasures which he had prepared to carry it out. As it included many things which were unknown beyond the council, and some which he shared only with me—and as, in particular, it enumerated the various secret alliances and agreements which he had made with the princes of North Germany, whom a premature discovery must place at the emperor's mercy—it was necessary that I should draw up the whole with my own hand, and with the utmost care and precaution. This I did; and that nothing might be wanting to a memorial which I regarded with justice as the most important of the many state papers which it had fallen to my lot to prepare, I spent seven days in incessant labor upon it. It was not, therefore, until the third week in August that I was free to travel to Monceaux.

I found my quarters assigned to me in a pavilion called the Garden House; and, arriving at supper time, sat down with my household with more haste and less ceremony than was my wont. The same state of things prevailed, I suppose, in the kitchen; for we had not been seated half an hour when a great hubbub arose in the house, and the servants, rushing in, cried out that a fire had broken out below, and that the house was in danger of burning.

In such emergencies I take it to be the duty of a man of standing to bear himself with as much dignity as is consistent with vigor; and neither to allow himself to be carried away by the outcry and disorder of the crowd, nor to omit any direction that may avail. On this occasion, however, my first thought was given to the memorial I had prepared for the king, which I remembered had been taken with other books and papers to a room over the kitchen. I lost not a moment, therefore, in sending Maignan for it; nor until I held it safely in my hand did I feel myself at liberty to think of the house. When I did, I found that the alarm exceeded the danger; a few buckets of water extinguished a beam in the chimney which had caught fire, and in a few moments we were able to resume the meal with the added vivacity which such an event gave to the conversation. It has never been my custom to encourage too great freedom at my table; but as the company consisted, with a single exception, of my household, and as this person—a Monsieur de Vilain, a young gentleman, the cousin of one of my wife's maids-of-honor—showed himself possessed of modesty as well as wit, I thought that the time excused a little relaxation.

This was the cause of the misfortune which followed, and bade fair to place me in a position of as great difficulty as I have ever known; for, having in my good humor dismissed the servants, I continued to talk for half an hour or more with Vilain and some of my gentlemen, the result being that I so far forgot myself, when I rose, as to leave the report where I had laid it on the table. In the passage I met a man whom the king had sent to inquire about the fire; and thus reminded of the papers, I turned back to the room, greatly vexed with myself for negligence which in a subordinate I should have

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severely rebuked, but never doubting that I should find the packet where I had left it.

To my chagrin the paper was gone. Still I could not believe that it had been stolen, and supposing that Maignan or one of my household had seen it and taken it to my closet, I repaired thither in haste. I found Maignan already there, with Monsieur Boisrueil, one of my gentlemen, who was waiting to ask a favor, but they knew nothing of the report; and though I sent them down forthwith, with directions to make strict but quiet inquiry, they returned at the end of half an hour with long faces and no news.

Then I grew seriously alarmed; and reflecting on the many important secrets which the memorial contained, whereof a disclosure must spoil plans so long and sedulously prepared, I found myself brought on a sudden face to face with disaster. I could not imagine how the king, who had again and again urged on me the utmost precaution, would take such a catastrophe, nor how I should make it known to him. For a moment, therefore, while I listened to the tale, I felt the hair rise on my head and a shiver descend my back; nor was it without an uncommon effort that I retained my coolness and composure.

Plainly no steps in such a position could be too stringent. I sent Maignan with an order to close all the doors and let no one pass out. Then I made sure that none of the servants had entered the room between the time of my rising and return, and narrowed the tale of those who could have taken the packet to eleven, that being the number of persons who had sat down with me. But having followed the matter so far, I came face to face with this difficulty: that all the eleven were, with one exception, in my service and in various ways pledged to my interests, so that I could not conceive even the possibility of a betrayal by them in a matter so important.

I confess, at this, the perspiration rose upon my brow; for the paper was gone. Still, there remained one stranger; and though it seemed scarcely less difficult to suspect him, since he could have no knowledge of the importance of the document, and could not have anticipated that I should leave it in his power, I found in that the only likely solution. He was one of the Vilains of Pareil by Monceaux, his father living on the edge of the park, little more than a thousand yards from the château, and I knew no harm of him. Still I knew little; and for that reason was forward to believe that there, rather than in my own household, lay the key to the enigma.

My suspicions were not lessened when I discovered that he alone of the party at table had left the house before the doors were closed, and for a moment I was inclined to have him followed and seized. But I could scarcely take a step so decisive without provoking inquiry; and I dared not at this stage let the king know of my negligence. I found myself, therefore, brought up short, in a state of exasperation and doubt difficult to describe; and the most minute search within the house and the closest examination of all concerned failing to provide the slightest clue, I had no alternative but to pass the night in that condition.

On the morrow a third search seeming still the only resource, and proving as futile as the others, I ordered La Trape and two or three in whom I placed the greatest confidence to watch their fellows, and report anything in their bearing or manner that seemed to be out of the ordinary course; while I myself went to wait on the king, and parry his demand for the memorial as well as I could. This it was necessary to do without provoking curiosity; and as the lapse of each minute made the pursuit of the paper less hopeful and its recovery a thing to pray for rather than expect, it will be believed that I soon found the aspect of civility which I was obliged to wear so great a trial of my patience that I made an excuse and retired early to my lodging.

Here my wife, who shared my anxiety, met me with a face full of meaning. I cried out to know if they had found the paper.

"No," she answered; "but if you will come into your closet I will tell you what I have learned."

I went in with her, and she told me briefly that the manner of Mademoiselle de Mars, one of her maids, had struck her as suspicious. The girl had begun to cry while reading to her; and when questioned had been able to give no explanation of her trouble.

"She is Vilain's cousin?" I said.

"Yes, monsieur."

"Bring her to me," I said. "Bring her to me without the delay of an instant."

My wife hastened to comply; and whatever had been the girl's state earlier, before the fright of this hasty summons had upset her, her agitation, when thus confronted with me, gave me, before a word was spoken, the highest hopes that I had here the key to the mystery. I judged

that it might be necessary to frighten her still more, and I started by taking a harsh tone with her; but before I had said many words she obviated the necessity of this by falling at my wife's feet and protesting that she would tell all.

"Then speak quickly, wench!" I said. "You know where the paper is?"

"I know who has it," she answered in a voice choked with sobs.

"Who?"

"My cousin, Monsieur de Vilain."

"Ha! and has taken it to his house?"

But she seemed for a moment unable to answer this, her distress being such that my wife had to fetch a vial of pungent salts to restore her before she could say more. At length she found voice to tell us that Monsieur de Vilain had taken the paper, and was this evening to hand it to an agent of the Spanish ambassador.

"But, girl," I said sternly, "how do you know this?"

Then she confessed that the cousin was also the lover, and had before employed her to disclose what went on in my household, and anything of value that could be discovered there. Doubtless the girl, for whom my wife, in spite of her occasional fits of reserve and temper, entertained no little liking, enjoyed many opportunities of prying, and would have continued still to serve him had not this last piece of villainy, with the stir which it caused in the house, and the rigorous punishment to be expected in the event of discovery, proved too much for her nerves. Hence this burst of confession, which, once allowed to flow, ran on almost against her will. Nor did I let her pause to consider the full meaning of what she was saying until I had learned that Vilain was to meet the ambassador's agent, an hour after sunset, at the east end of a clump of trees which stood in the park, and, being situate between his (Vilain's) residence and the château, formed a convenient place for such a transaction.

"He will have it about him?" I said.

She sobbed a moment, but presently confessed. "Yes; or it will be in the hollow of the most easterly tree. He was to leave it there, if the agent could not keep the appointment."

"Good!" I said; and then having assured myself by one or two questions of that of which her state of distress and agitation left me in little doubt, namely, that she was telling the truth, I committed her to my wife's care, bidding the duchess lock her up in a safe place upstairs, and treat her to bread and water until I had taken the steps necessary to prove the fact and secure the paper.

After this—but I should be tedious were I to describe the alternations of hope and fear in which I passed the period of suspense. Suffice it that I informed no one, not even Maignan, of what I had discovered, but allowed those in the secret of the loss still to pursue their efforts; while I, by again attending the court, endeavored at once to mitigate the king's impatience and persuade the world that all was well. A little before the appointed time, however, I made a pretext to rise from supper, and quietly calling out Boisrueil, bade him bring four of the men, armed, and Maignan and La Trape. With this small body I made my way out by a private door, and crossed the park to the place mademoiselle had indicated.

Happily, night had already begun to close in, and the rendezvous was at the farther side of the clump of trees. Favored by these circumstances, we were able to pass round the thicket—some on one side and some on the other—without noise or disturbance; and fortunate enough, having arrived at the place, to discover a man walking uneasily up and down on the very spot where we expected to find him. The evening was so far advanced that it was not possible to be sure that the man was Vilain; but as all depended on seizing him before he had any communication with the Spanish agent, I gave the signal, and two of my men, springing on him from either side, in a moment bore him to the ground and secured him.

He proved to be Vilain, so that, when he was brought face to face with me, I was much less surprised than he affected to be. He played the part of an ignorant so well, indeed, that, for a moment, I was staggered by his show of astonishment, and by the earnestness with which he denounced the outrage; nor could Maignan find anything on him. But a moment later, remembering the girl's words, I strode to the nearest tree, and, groping about it, in a twinkling unearthed the paper from a little hollow in the trunk that seemed to have been made to receive it. I need not say with what relief I found the seals unbroken, nor with what indignation I turned on the villain thus convicted of an act of treachery towards the king only less black than the sin against hospitality of which he had been guilty in my house. But the discovery I had made seemed enough of itself to overwhelm him; for, after standing apparently stunned while I spoke, he jerked

himself suddenly out of his captors' hands, and made a desperate attempt to escape. Finding this hopeless, and being seized again before he had gone four paces, he shouted at the top of his voice: "Back! back! Go back!"

We looked about, somewhat startled, and Boisrueil, with presence of mind, ran into the darkness to see if he could detect the person addressed; but though he thought that he saw the skirt of a flying cloak disappear in the gloom, he was not sure; and I, having no mind to be mixed up with the ambassador, called him back. I asked Vilain to whom he had called, but the young man, turning sullen, would answer nothing, except that he knew naught of the paper. I thought it best, therefore, to conduct him at once to my lodgings, whither it will be believed that I returned with a lighter heart than I had gone. It was, indeed, a providential escape.

How to punish the traitor was another matter, for I could scarcely do so adequately without betraying my negligence. I determined to sleep on this, however, and, for the night, directed him to be locked into a chamber in the southwest turret, with a Swiss to guard the door, my intention being to interrogate him further on the morrow. However, Henry sent for me so early that I was forced to postpone my examination; and, being detained by him until evening, I thought it best to tell him, before I left, what had happened.

He heard the story with a look of incredulity, which, little by little, gave way to a broad smile. "Well," he said, "Grandmaster, never chide me again! I have heard that Homer sometimes nods; but if I were to tell this to Sillery or Villeroy, they would not believe me."

"They would believe anything that your Majesty told them," I said. "But you will not tell them this?"

"No," he said kindly, "I will not; and there is my hand on it. For the matter of that, if it happened to them, they would not have told me."

"And perhaps been the wiser for that," I said.

"Don't believe it," he answered. "But now, what of this young Vilain? You have him safe?"

"Yes, sire."

"The girl is one degree worse; she betrays both sides to save her skin."

"Still, I promised——"

"Oh, she must go," Henry said. "I quite understand. But for him—we had better have no scandal. Keep him until to-morrow, and I will see his father, and have him sent out of the country."

"And he will go scot free," I said, bluntly, "when a rope and the nearest tree——"

"Yes, my friend," Henry answered with a dry smile; "but that should have been done last night. As it is, he is your guest, and we must give an account of him. But first drain him dry. Frighten him as you please, and get all out of him; then I wish them joy of him. Faugh! and he a young man. I would not be his father for two such crowns as mine!"

As I returned to my lodgings I thought over these words, and I fell to wondering by what stages Vilain had sunk so low. Occasionally admitted to my table, he had always borne himself with a modesty and discretion that had not failed to prepossess me; indeed, the longer I considered the king's saying, the greater was the surprise I felt at this *dénouement*, which left me in doubt whether my dulness exceeded my negligence, or the young man's parts surpassed his wickedness.

A few questions, I thought, might resolve this; but having been detained by the king until supper-time, I postponed the interview until I rose. Then bidding them bring in the prisoner, I assumed my harshest aspect and prepared to blast him by discovering all his vileness to his face.

But when I had waited a little, only Maignan came in, with an air of consternation that brought me to my feet. "Why, man, what is it?" I cried.

"The prisoner," he faltered. "If your excellency pleases——"

"I do not please," I said sternly, believing that I knew what had happened. "Is he dead?"

"No, your excellency; but he has escaped."

"Escaped? From that room?"

Maignan nodded.

"Then, *par Dieu!*" I replied, "the man who was on guard shall suffer in his place! Escaped? How could he escape except by treachery? Where was the guard?"

"He was there, excellency. And he says that no one passed him."

"Yet the man is gone?"

"The room is empty."

"But the window—the window, fool, is fifty feet from the ground!" I said. "And not so much footing outside as would hold a crow!"

Maignan shrugged his shoulders, and in a rage I bade him follow me, and went my-

self to view the place, to which a number of my people had already flocked with the lights, so that I found some difficulty in mounting the staircase. A very brief inspection, however, sufficed to confirm my first impression that Vilain could have escaped by the door only; for the window, though it lacked bars and boasted a tiny balcony, hung over fifty feet of sheer depth, so that evasion that way seemed, in the absence of ladder or rope, purely impossible. This being clear, I ordered the Swiss to be seized; and as he could give no explanation of the escape, and still persisted that he was as much in the dark as anyone, I declared that I would make an example of him, and hang him unless the prisoner was recaptured within three days.

I did not really propose to do this, but in my irritation I spoke so roundly that my people believed me; even Boisrueil, who presently came to intercede for the culprit, who, it seemed, was a favorite. "As for Vilain," he continued, "you can catch him whenever you please."

"Then catch him before the end of three days," I answered obstinately, "and the man lives."

The truth was that Vilain's escape placed me in a position of some discomfort; for though, on the one hand, I had no particular desire to get him again into my hands, seeing that the king could effect as much by a word to his father as I had proposed to do while I held him safe; on the other hand, the evasion placed me very peculiarly in regard to the king himself, who was inclined to think me ill or suddenly grown careless. Some of the facts, too, were leaking out, and provoking smiles among the more knowing, and a hint here and there; the result of all being that, unable to pursue the matter farther in Vilain's case, I hardened my heart and persisted that the Swiss should pay the penalty.

This obstinacy on my part had an unforeseen issue. On the evening of the second day, a little before supper-time, my wife came to me, and announced that a young lady had waited on her with a tale so remarkable that she craved leave to bring her to me that I might hear it.

"What is it?" I said impatiently.

"It is about Monsieur de Vilain," my wife answered, her face still wearing all the marks of lively astonishment.

"Ha!" I exclaimed. "I will see her, then. But it is not that baggage who——"

"No," my wife answered. "It is another."

"One of your maids?"

"No, a stranger."

"Well, bring her," I said shortly.

She went, and quickly returned with a young lady whose face and modest bearing were known to me, though I could not, at the moment, recall her name. This was the less remarkable as I am not prone to look much in maids' faces, leaving that to younger men; and Mademoiselle de Figeac's, though beautiful, was disfigured on this occasion by the marked distress under which she was laboring. Accustomed as I was to the visits of persons of all classes and characters who came to me daily with petitions, I should have been disposed to cut her short, but for my wife's intimation that her errand had to do with the matter which annoyed me. This, as well as a trifle of curiosity—from which none are quite free—inclined me to be patient; and I asked her what she would have with me.

"Justice, Monsieur le Duc," she answered simply. "I have heard that you are seeking Monsieur de Vilain, and that one of your people is lying under sentence for complicity in his escape."

"That is true, mademoiselle," I said. "If you can tell me——"

"I can tell you how he escaped, and by whose aid," she answered.

It is my custom to betray no astonishment, even when I am astonished. "Do so," I said.

"He escaped through the window," she answered firmly, "by my brother's aid."

"Your brother's?" I exclaimed, amazed at her audacity. "I do not remember him."

"He is only thirteen years old."

I could hide my astonishment no longer. "You must be mad, girl!" I said; "mad! You do not know what you are saying! The window of the room in which Vilain was confined is fifty feet from the ground, and you say that your brother, a boy of thirteen, contrived his escape?"

"Yes, Monsieur de Sully," she answered. "And the man who is about to suffer is innocent."

"How was it done, then?" I asked, not knowing what to think of her persistence.

"My brother was flying a kite that day," she answered. "He had been doing so for a week or more, and every one was accustomed to seeing him here. After sunset, the wind being favorable, he came under Monsieur de Vilain's window, and when it was nearly dark, and the servants and household were at supper, he guided

the kite against the balcony outside the window."

"But a man cannot descend by a kite string!"

"My brother had a knotted rope, which Monsieur de Vilain drew up," she answered simply; "and afterwards, when he had descended, disengaged."

I looked at her in profound amazement. "Your brother acted on instructions?" I said at last.

"On mine," she answered.

"You avow that?"

"I am here to do so," she replied, her face white and red by turns, but her eyes continuing to meet mine.

"This is a very serious matter," I said. "Are you aware, mademoiselle, why Monsieur de Vilain was arrested, and of what he is accused?"

"Perfectly," she answered; "and that he is innocent. More!" she continued clasping her hands, and looking at me bravely, "I am willing both to tell you where he is, and to bring him, if you please, into your presence."

I stared at her. "You will bring him here?" I said.

"Within five minutes," she answered, "if you will first hear me."

"What are you to him?" I said.

She blushed vividly. "I shall be his wife or no one's," she said; and she looked a moment at my wife.

"Well, say what you have to say!" I cried roughly.

"This paper which it is alleged that he stole—it was not found on him, but in the hollow of a tree."

"Within three paces of him. And what was he doing there?"

"He came to meet me," she answered, her voice trembling slightly. "He could have told you so, but he would not shame me."

"This is true?" I said, eyeing her closely.

"I swear it!" she answered, clasping her hands. And then, with a sudden flash of rage, "Will the other woman swear to her tale?" she cried.

"Ha!" I said, "what other woman?"

"The woman who sent you to that place," she answered. "He would not tell me her name, or I would go to her now and wring the truth from her. But he confessed to me that he had let a woman into the secret of our meeting; and this is her work."

I stood a moment pondering, with my eyes on the girl's excited face, and my thoughts following this new clew through the maze of recent events, wherein I could not fail to see that it led to a very different conclusion from that at which I had arrived. If Vilain had been foolish enough to wind up his love-passages with Mademoiselle de Mars by confiding to her his passion for the Figeac, and even the place and time at which the latter was so imprudent as to meet him, I could fancy the deserted mistress laying this plot; and first placing the packet where we found it, and then punishing her lover by laying the theft at his door. True, he might be guilty, and it might be only confession and betrayal on which jealousy had thrust her. But the longer I considered the whole of the circumstances, as well as the young man's character, and the lengths to which I knew a woman's passion would carry her, the more probable seemed the explanation I had just received.

Nevertheless, I did not at once express my opinion; but, veiling the chagrin I naturally felt at the simple part I had been led to play—in the event I now thought probable—I sharply ordered Mademoiselle de Figeac to retire into the next room, and then I requested my wife to fetch her maid.

Mademoiselle de Mars had been three days in solitary confinement, and might be taken to have repented of her rash accusation, were it baseless. I counted somewhat on this; and more on the effect of so sudden a summons to my presence. But at first sight it seemed that I did so without cause. Instead of the agitation which she had displayed when brought before me to confess, she now showed herself quiet and even sullen; nor did the gleam of passion, which I thought that I discerned smouldering in her dark eyes, seem to promise either weakness or repentance. However, I had too often observed the power of the unknown over a guilty conscience to despair of eliciting the truth.

"I want to ask you two or three questions," I said civilly. "First, was Monsieur de Vilain with you when you placed the paper in the hollow of the tree, or were you alone?"

I saw her eyelids quiver as with sudden fear, and her voice shook as she stammered, "When I placed the paper?"

"Yes," I said, "when you placed the paper. I have reason to know that you did it. I wish to learn whether he was present, or you did it merely under his orders?"

She looked at me, her face a shade paler,

and I do not doubt that her mind was on the rack to divine how much I knew, and how far she might deny and how far confess. My tone seemed to encourage her frankness, however, and in a moment she said, "I placed it under his directions."

"Yes," I said dryly, my last doubt resolved by the admission; "but that being so, why did Vilain go to the spot?"

She grew still a shade paler, but in a moment she answered, "To meet the agent."

"Then why did you place the paper in the tree?"

She saw the difficulty in which she had placed herself, and for an instant she stared at me with the look of a wild animal caught in a trap. Then, "In case the agent was late," she muttered.

"But since Vilain had to go to the spot, why did he not deposit the paper in the tree himself? Why did he send you to the place beforehand? Why did—" and then I broke off and cried harshly, "Shall I tell you why? Shall I tell you why, you false jade?"

She cowered away from me at the words, and stood terror-stricken, gazing at me like one fascinated. But she did not answer.

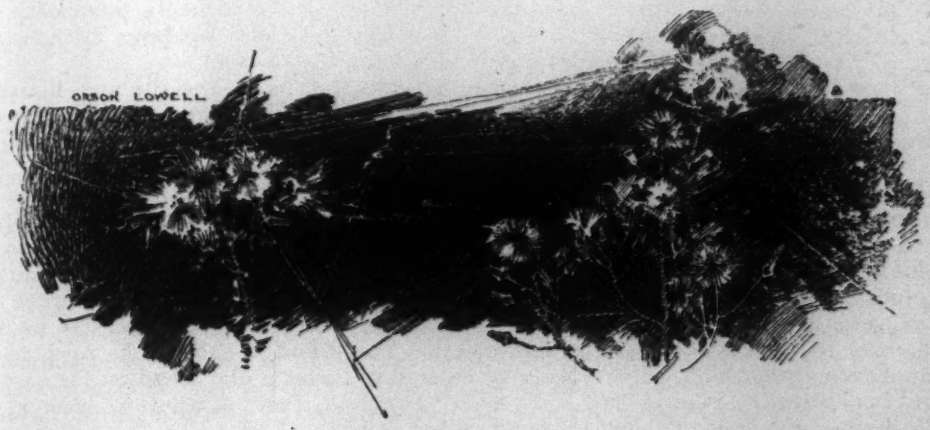
"Because," I cried, "your story is a tissue of lies! Because it was you, and you only, who stole this paper! Because—down on your knees! down on your knees!" I thundered, "and confess! Confess, or I will have you whipped at the cart's tail, like the false witness you are!"

She threw herself down, shrieking, and caught my wife by the skirts, and in a breath had said all I wanted, and more than enough to show me that I had suspected Vilain without cause, and both played the simpleton myself and harried my household to distraction.

So far, good. I could arrange matters with Vilain, and probably avoid publicity. But what was to be done with her?

In the case of a man I should have thought no punishment too severe, and the utmost rigor of the law too tender for such perfidy; but as she was a woman, and young, and under my wife's protection, I hesitated. Finally, the duchess interceding, I leaned to the side of that mercy which the girl had not shown to her lover, and thought her sufficiently punished, at the moment, by the presence of Mademoiselle de Figeac, whom I called into the room to witness her humiliation, and, in the future, by dismissal from my household. As this imported banishment to her father's country house, where her mother, a shrewd old Béarnaise, saved pence and counted lentils into the soup, and saw company once a quarter, I had, perhaps, reason to be content with her chastisement.

For the rest, I sent for Monsieur de Vilain, and by finding him employment in the finances, and interceding for him with the old Vicomte de Figeac, confirmed him in the attachment he had begun to feel for me before this unlucky event.



GALLOPING WOLF.

From a bas-relief by Kemeys.

EDWARD KEMEYS.

A SCULPTOR OF FRONTIER LIFE AND WILD ANIMALS.

By Hamlin Garland,

Author of "Main Travelled Roads," "Prairie Songs," "Crumbling Idols," etc.

GOLDEN EAGLE ATTACKING ANTELOPE.

From a sketch in clay by Kemeys.

EDWARD KEMEYS is a mystic. His mysticism is not of books; it arises, rather, from a knowledge of woods and wild spaces, from a love of mountains, from the breadth of the plains. Like the American Indian, he has come to feel nature as something very close and very sentient. This phase of his character (half-jocular in its expression) is perceived first of all.

In answer to my knock his light, rapid walk approached the door, which opened a slit, and his impassive face looked forth a moment's space in silence. Then his hand extended, his gray eyes expanded.

"I felt ye," he said, with a curious intentness and gravity. "I knew ye were near. Come in."

I stepped into his modest studio, unimposing in its walls, but full of interesting things. Everything was of the wild life. A miniature bronze grizzly paced across a pedestal toward a lithe jaguar. An Arapahoe warrior reclined in relief upon a slab. A buffalo calmly regarded some distant object from a height. Wolves, coons, prairie chickens, elk, mountain sheep, looked out from bronze plaques, or casts, or clay. Splendid Indian ornaments, moccasins of chiefs, quivers, and weapons of various kinds hung on the wall.

From these I turned to the man himself, an erect and active figure. He was dressed in a sort of long frock of yellow-white linen, and wore a green velvet cap. He appeared to be about forty-five years of age, hair a little gray, mustache clipped short. He looked a bold, resolute man of middle age. His figure, thin but sinewy, was active as an Indian's, and as erect.

"Take a chair. Take that one on the left. You'll find it easier," he said, as he started to cover a clay head on his easel.

"Don't do that; I want to look at it. What is it?"

"It's a bust of Du Lhut. I'm working on an order for twenty medallions for the Marquette Building here, to include explorers, *courriers de bois*, Indians, etc."

The face of the old French explorer was

serious, intent, like one who had also faced God's mystery in the woods.

As I rose to look at a fine, grim, old Arapahoe face on a plaque, my elbow touched one of the curving horns of a mountain sheep, and it fell with a clatter. Kemeys caught it and set it up again carefully.

"The old fellow wanted to be noticed," he said with a smile. "He don't like to be forgotten. I never can go by him without hearing from him. Same way with a big elk hide I have. Always throws me down if I walk over him without thinking of him. When I trip up and say 'Excuse me,' the old fellow smooths out again." All this with quaint, convincing earnestness.

"A banjo. Do you play?" I said, as we faced about.

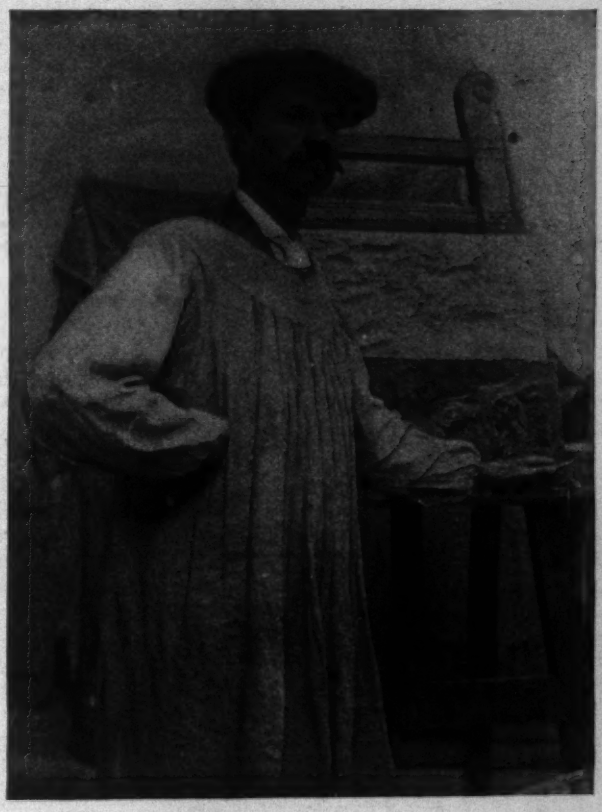
"Oh, I touch it up a little in my own way," he replied evasively. "I carried a banjo on all my trips into the wilderness."

"That must be a part of your Southern inheritance. You were born in Georgia, weren't you?"

He sat down facing me, and studied me with return intentness. "Yes, but I came North when I was a child. I'm Welsh descent. Kemeys is pure Welsh."

"So it is. I'd always supposed it to be German. It's another one of those typical American combinations, is n't it? Here's a man born in Georgia, of parents of Welsh descent, become our sculptor of wild animals. Now I'm going to confess that I'm here to find out how that happened. I want you to put me in possession of the main facts. How did you begin?"

He did not speak for a moment. His head drooped and his face grew grave. The retrospect was not predominantly pleasant.



EDWARD KEMEYS.

"When I think of the things I've been through—" He drew a deep breath. "It's as if some angel of life had said, 'I'll give you gifts—but I'll give suffering, too.' I don't complain, understand, but I've paid with the blood out of my heart for all I've done. I've had to be alone; I've had to do my work alone."

"I know what you mean. It is not the first time parents have bequeathed a great gift to a son and then failed to understand him."

"Yes; but I can't trace a particle of my power to my people. That's the strange thing about it all."

"It might have been latent in 'em for all that. But tell me of your early life."

KEMEYS'S YOUTH AND HIS FIRST VISIT TO THE WEST.

In a few words he sketched his early boyhood in Scarborough on the Hudson, where his father lived till Edward was about thirteen years of age. His face was sombre as he told of his home in New York City and his school life there; but at length his eyes lighted up.

"Then came the first great event in my life, my first trip to the West, to visit some relatives down here in Illinois. I thank the Lord for that trip. I was only thirteen years of age, and I was plunged right into the richness of these prairies in the fifties. You can imagine what the prairies were then. I know the prairies as you do, the whole of them—birds, snakes, flowers—but the big game was just a little west. Oh, how I used to plot and scheme to get out there! And the sad part was, I had to go back to New York City in winter. But

THE BUFFALO HUNT.
From a bas-relief by Kemeys.

the work was done; I had had a taste of wild life. From that time I lived only to get back West. I marked off every day on the calendar, and said, 'One day nearer happiness again.' After that visit people couldn't hurt me in the city. When they ran against me I wasn't there. I was dreaming of the West. That was the beginning of the whole campaign."

I felt I was getting at the most secret springs of his action. "It seems strange you should have had those longings for the wilderness. A man born in the West could not feel its significance more intensely."

"All I saw in the West seemed native to me, as if I had returned to it from a strange land. And the prairies were full of all beauty then. But that was only part of it. I wanted to get farther west—the plains called me—but before I could get to them the war broke out and I went in."

"You must have been a mere boy."

"Seventeen. I served in the infantry in the Peninsular campaign till I fell sick of fever and was discharged. I went in again later as second lieutenant, and got to be first lieutenant and finally captain of United States colored artillery. Great days!" He outlined them with rapid phrase. "Great days—hunting guerillas with blood-hounds; camp at night, hearing the negroes sing; thunder of great guns, battle-fields thick with dead, 'Johnnies' staring up at the moon—" He broke off with a gesture of verbal weakness. "Hard life for a youngster, but all working round towards something worth while."

"Well, didn't this war break in on your artistic plans?"

"I didn't have any plans of any sort except to get out West. Just as soon as the war closed I started for Illinois again, and went to farming with my relations near the central part of the State."

He digressed to describe a barley-field in July, and to assure me that he knew all about the scenes of my stories—threshing, binding grain, all of it! Those were restless days, he said. His people considered him a failure. He lacked "snap" and "push." He did little but dream and hunt.

At this point his mysticism came out again. His whole expression changed; his voice became low and very grave (his voice is very flexible and follows every minute change in his emotion). "About this time I felt a great change coming," he explained, with solemn inflection. "All this time I had been restless and unsatisfied. I longed to do something, I didn't know what. I couldn't content myself much longer dreaming and hunting."

He felt my sympathy, and he uttered his fatalism without apology. His abrupt, direct language made it all the more marvellous. He accepted it as a fact, whatever the explanation of it might be. "It

was like a voice speaking to me," he said. "It came at night at first. I'd start awake suddenly, as if I had heard a voice saying, 'You haven't done your work. You've missed it.' Sometimes it said, 'What are you doing here?' At last these voices or thoughts came in the daytime, and then I'd be plunged in gloom for days. I remember once I took some horses to town to be shod, and while waiting I went out and lay down against an old wheel near the shop and fell asleep (I saw the very place the other day), and the voice woke me up —'What are you doing here? You have not done your work.' I didn't know what to do. I went back to work like a man sentenced to hang. Couldn't see any other way out of it; but suddenly I found myself on my way to New York."

HOW KEMEYS'S CALLING WAS DISCLOSED TO HIM.

Reaching New York he was as far, apparently, from his work as ever. He had to live, and so (by great good fortune) secured a place as axeman on the engineer corps of Central Park. His life for a year and a half was very gloomy. He suffered from terrible headaches of a congestive sort, caused by an accident some years before which depressed the bridge of his nose and interfered with the blood circulation in the nasal passages.

There he was, worst of all, working for two dollars per day, with the ceaseless urging to do something, he had no clew to what it might be.

"The only thing which gave me keen pleasure," he said, "was studying the wild animals in the Park. I had determined to keep working along at all kinds of things, hoping to strike the right thing at last. I felt sure I would know it instantly. At last it came!"

This moment, which he then described to me in swiftly moving phrases, is one of the most marvellous in the history of art. He happened to see an old sculptor modelling the head of a wolf. Quick as lightning came the thought to him, "I can do that!"

"I felt it for an absolute certainty. The old man laughed at me, but it made no impression on me. My fingers itched to get hold of that wax."

He then related, with wealth of detail, the wonderful night he had. He carried his bunch of wax to his room, too excited to eat or sleep, and there modelled his wolf's head with the jaws open. The old sculptor had been working upon one with the jaws closed.

KEMEYS AND HIS BANJO.
Drawn from life, by Orson Lowell.

"And then I sat down and waited for daylight in order to show my work to the family. I wanted to be certain. I wasn't sure but my imagination had made me see a wolf's head in a lump of wax. I knew it was a critical moment with me—the most critical of all my life. I went down, carrying the head covered with a handkerchief. I shook with excitement. I wanted it a test, so I said, 'Now, I've got something to show you. If you recognize it say so *quick*, don't hesitate.' Then I jerked the handkerchief away. 'It's a wolf,' they said."

I realized the dramatic importance of that moment, but something in his voice led me to understand he had not reached the climax of his story.

"I was wonderfully pleased, but I was not satisfied. I went back and modelled another head. I brought it down just as before, and when I uncovered it they said, 'Why, it's Lap!' Lap was their dog. That settled it. I had come to my own. I had struck the trail," he added, with characteristic resort to the vernacular of the plains to cover his deep emotion.

"All this without instruction?"

"Nothing but study of the fact," he said. It was magnificent to see him now. He walked away a little and turned.

He uttered himself broadly, powerfully, as befits a great natural artist. He had no fear or thought of being egotistical. His strong hands spread and clutched like an eagle's talons, his voice was full of downward inflections, his words came like gusts of mountain wind.

"About this time I woke up. No more indecision. I began to feel my wings expand. I felt I could do anything, anything, in sculpture. All I needed was subjects. That night I sat down and made a list of the things I must do."

"Of what character?"

"All wild. Deer fighting panther, wolves fighting buffalo, and that sort. The first group I did, I sold to Philadelphia for

A SKETCH IN CLAY BY KEMEYS.

the Park—'A group of wolves.' The second thing I sold in England for eleven hundred dollars, and the third group carried me into the *Salon* at Paris."

I clapped hands in enthusiasm. "Glorious! All without instruction?" I wished to emphasize the point.

"Absolutely. I never had an hour's instruction from any teacher."

"That's royal. That's the power which creates."

"But I had always studied animals," he went on. "I knew the facts. I knew the skeletons and the muscles of animals. I knew their equilibrium of parts from actual study."

"You went to nature?"

"Yes; and then I always had, someway, an intuitive conception of what animals would do under certain circumstances. I

A SKETCH IN CLAY BY KEMEYS.

BROWN MOOSE, SOMETIMES CALLED "FORTY FINGERS," A MOHAWK CHIEF KILLED BY DU LHUT.

From a sculpture by Kemeys.

could see them—see them in groups. I knew nothing about conventional composition, but I could *see* my subjects, every gesture, intuitively."

"I reckon the intuition could be accounted for on natural grounds. However, we won't argue that now. You had always loved animals, and observed them unconsciously; isn't that so?"

He replied in one of those unique phrases he uses when nothing but hyperbole is capable of expressing the fact. "Yes, I always studied animals. I could sit down before an animal and *drink him dry.*"

I liked that expression of power. I liked that certainty. "Can *you* account for the power?" I asked, to get at his idea from his own point of view.

"No, only the Almighty gave it to me," he said, with a swift return to solemnity.

LIFE AMONG THE INDIANS AND THE BUFFALO.

"But you hadn't seen the buffalo——"

"Hold on, we're getting ahead of the story," he said, and the humorous look came back to his eyes. "When I sold that group of wolves to the Park I naturally headed for the West. Oh, that trip!" He glowed with the memory of it. "I saw the buffalo! I am one of the few artists living who have hunted and killed buffalo."

From this forward he proceeded without interruption to tell me of that wonderful trip. He told of the wagon train crawling slowly toward Fort Leavenworth; he decribed the plains as they seemed to him then; he told of his first antelope; of his first view of the Rocky Mountains looming over the level sod almost two hundred miles away. "Glorious things to travel to, those cloud-like masses there in the western sky," he said, with a little catching of the breath.

It all came back to me with mighty power. "I know, I know!" I broke in. "The Spanish Peaks, and away to the north, Pike's Peak. How long ago was that?"

"Twenty-two years ago."

"How I envy you that trip! I never saw the buffalo; they were always just a little beyond. The deer and antelope and wolves, we had; but not the buffalo. Well?"

AN INDIAN CHIEF.

From a sculpture by Kemeys.

"I found myself finally in the buffalo country, but strapped for money and nobody to help me out. I went to one hunting party just ready to go out, and asked them what they'd take to let me go along. 'What can you do?' they asked. 'Well, I can cook a little, and shoot a little, and play the banjo.'

"'Can you play the banjo? That settles it; come right along.'" He glowed with the recollection, taking a turn about the floor.

"Oh, we had a noble life! I was happy now. Every night I had all the animals I could use for dissection and posing. I used to sit around on a roll of hides after supper and sing. The boys always called for 'The Lady in Crape.' They never seemed to tire of it."

"I don't know that one; sing it, sing it."

He snatched up the banjo and gave a few quick, characteristic passes across the strings, and sang "The Lady in Crape," a college ditty of delicious absurdity. At the end he said, with a quizzical smile:

"Fancy singing that for a serious production every night for six months."

He stopped playing abruptly. "I travelled with those fellows till I had all the best of the plains animals—buffalo, antelope, coyote. It's a curious thing, but I've always accomplished the thing I wanted to do, and that was best for me, without any money, as if Almighty Providence put the things in my way."

This note he struck again and again. In his marvellous life, full of toil and unrest, the fact of succeeding had been so mysterious, it seemed like predestination—perhaps it was; who shall say?

"Now, just see," he went on: "I wanted to go on to the mountains, but the party was turning back. The very night before they started East, I fell and broke my arm. I couldn't travel, so they just left me there with my partner. That night I became delirious. When I came to myself I was in the tent of an Omaha chief. His name was 'White Buffalo,' and he became my friend and helped me in every way possible.

"So, without any effort on my part, I was dropped right into the Indian life. I seemed always to be following the genius of this new art whose home was in the West. I thought of it so much, I came to make a personality of it. I felt I must seek her in the mountain fastnesses of the West. I wanted to go to the very heart of the wilderness, and then came the mountains! I went all through them. I met the mountain animals, I killed them, grizzlies, sheep, wolves. The Indians brought me specimens also. Their interest and criticism would make many a white man ashamed of himself. They made no mistakes about men or animals. I went to the heart's core of our American wilderness, and it yielded up its most carefully guarded secrets to me."

As these scenes came crowding back upon him, he became tremendously dramatic. He dropped into the sign language, he dramatized the Indians and spoke their dialect. He told stories of their hospitality, of their home life, of their treatment of him, almost invariably kind. I drew out that he had lived with the Crows, the Omahas, the Brulé Sioux, the Shoshones, the Arapahoes, and several other tribes. He told of their games, of their life in the tents.

"They're fine as the Greeks, only different, of course," he said. "I am going to do a series of studies of them at their games and their hunting. Nothing finer in the world. They'd make a superb frieze."

"How did their life in general impress you?" I asked.

"As being very natural. They left you free to do as you liked. They did not suggest, but helped to do. I think I learned more there during that six months than at any other time; and right here let me say, don't make too much of my hunting. I was a hunter for a purpose—to study men and animals. I am a sculptor

A GRIZZLY BEAR, "OLD EPHRAIM."
From a sculpture by Kemeys.

KEMEYS AT HOME.

of animals from choice, not because it is easy. I expect to do more and more in the way of human figures."

A SPLENDID LIFE FAST PASSING AWAY.

Of this wild life and this mountain region which we both love so well, we talked long. He told me of his almost solitary life in the camp of an old hunter far from other human presence. He told me of his battle with a grizzly, of his terrible experiences after wild sheep on the almost inaccessible peaks of the Big Horn Mountains. Of his conversation, so vivid and forceful, and, withal, so infiltered with mysticism, I cannot write fittingly. I can only weakly suggest, at best, its extraordinary interest. If he succeeds in suggesting in clay or bronze a hundredth part of it, he will be the greatest sculptor of wild life in the world.

A GRIZZLY BEAR DEVOURING A BUFFALO.

From a sketch in clay by Kemeys.

"And it is all passing, this splendid life," I said.

"All going, all going," he said, with the same strange sadness, apparently, which I felt so strongly. "What will we do without it?"

"Well, now, you went back to New York after each trip?"

His face darkened and he made a gesture of defence. "Don't ask me. I don't like to think of that part of it. Yes, I'd go back to New York and work till I sold something, and then—back West again."

"They *did* buy things occasionally?"

"Yes, I had friends who believed in me—Theodore Roosevelt, Julian Hawthorne. I had lovely friends there, couldn't have lived without them; but the wild life called me all the time."

"When did that trip abroad come in?" I asked.

"In 1877, I went abroad to see what they would think of me over there. My friends all said I must do it. I didn't want to go, and I nearly died when I did go. Homesick all the time—miserable—lost flesh. I don't know what I should have done without Hawthorne. I went to England first, and I held an exhibition there; then I went to Paris. I stayed there until I put the buffalo and wolves into the *Salon*. Oh, but I was home-

sick! When I found myself on shipboard and pointed for America, I could have turned hand-springs all over the deck.

A LESSON IN SCULPTURE.

"Since then, to make a short story of it, I've had my studio in the East, but at every opportunity I've made pilgrimages to the wilderness. I don't know that I've told you the things you needed to know."

"I only wish I could use all you've said. I wanted to know how you came to do this work."

"I couldn't help it. I had to do it."

"I understand."

As he stood before his easel, to which he turned at my request, his lithe figure looked buoyant and youthful, but his spectacles, and the gray hair on his temples were the signs of years of warfare. He has garnered his facts and perfected his technique, and is in the prime of his artistic life.

AN AMERICAN PANTHER.

From a sketch in clay by Kemeys.

"I believe in things which appeal to the people," he said a little later. "I never have doubted the judgment of the people, but I have doubted the thing which needs a professor in a college to make the public believe in it."

"Some of your things are, of course, out of the range of common observation, and might fail for that reason with the people; but I have faith in the common American. I hope to see you do more figures, though," I added.

"Now I'll give you a lesson in sculpture," he said. He placed a slab of moist gray clay on the easel, and taking a wire tool made a broad oval with two lines. He then struck two slashes right, left (a little oblique), and made two dabs, centre, and a downward curve beneath, and there was a suggestion of a sombre human face. He rolled some clay into little strings and pinched it in over the lines.

"The whole process is one of building up," he said. And in a moment more the face grew in strength, the nose came out and cast a shadow. The eyebrows appeared vaguely—mere humps. He scooped away the line at the side and laid a spot of clay on the cheek. The mouth pouted out and grew strong, the eyes deepened, the nose arched. Over the head a few feathers waved. Muscles appeared under the eyes and ran obliquely away from the nose. It was the face of an aged Indian. Each moment it grew in animal-like power and majesty. I felt strength there, and sadness. I spoke of it.

RECLINING BUFFALO.

From a sculpture by Kemeys.

"They all seem sad, these Indians. In repose they look like a people fighting a despairing battle."

"They are," he replied. "I always feel it in their presence. See that mouth. This is a woods Indian; he isn't so fierce as the plains Indian. His jaw is less prominent, his forehead recedes more, and he's thinner. His eyes are not so deeply sunk. The plains Indian squints in the daylight, his eyes contract like a cat's; the woods Indian is not the same man."

As he talked, muscles heaped upon bone, transverse, horizontal; and out of the clay stood a rugged, powerful old face, full of sorrowful and ferocious protest. I felt him. The power of the Indian race reasserted its dominion over me once more. Such was the lesson in sculpture.

"Now you must come home with me," said the sculptor, laying aside his mob cap of green velvet and his apron of linen.

A CORNER OF KEMEYS'S STUDIO, SHOWING INDIAN RELICS.

KEMEYS IN HIS CHICAGO HOME.

Mr. Kemeys has located in Chicago. "I'm a thousand miles nearer my work," he smilingly said. His home is on the South Side, near the Bryn Mawr station. The cottage is not noticeable outside; inside, the presence of the sculptor is everywhere. In the little hall as you enter are his trophies: over the mantel a mountain sheep; opposite, a huge black buffalo glowers; in the corner is the head of a grizzly bear, the hero and almost the victor in a battle with the sculptor. A beautiful bronze prairie cock brought back spring days on the farm in Iowa. A mountain lion in a beautiful and singularly gracious pose looked down from a stand as if from a high rock.

In each room bronze reproductions in frames decorated the walls. Indian ornaments, heads, arrows, pipes and all abound.

The chief ornament of his home is his beautiful wife, his actual comrade and helpmeet. Mrs. Kemeys is also a sculptor, and works with her husband each day. She superintends the reproduction of his work, and aids him in a manual way when she is not studying. She hopes to be able to take up his art and become his fellow-artist. She modestly disclaims the possession of any special power.

She is almost as remarkable in many ways as her husband. Her marvellous physique, her skill as a hunter, and her energy and adaptability make her a perfect comrade to him when they go out into the wilderness.

We sat down before the open fire and continued our talk. As the night fell and the fire-light grew in power, he took up the banjo and sang snatches of negro song, and imitated the Indian chants for me, and told more of his life with the Indians. A strange and wonderful people. A people of great dignity and power, mixed with cruelty and ignorance.

"They are a psychologic race. Put any white man in the same environment with them, and they come to dominate him in

a psychologic way—maybe mesmeric—I don't know that I can explain."

In everything he said there was a deep earnestness and a curious dramatic intensity, such as he puts into many of his groups.

KEMEYS'S CHARACTER AND QUALITY AS A MAN.

Kemeys is naturally a religious man, and he feels purposes and powers running all through nature, and all through his own life.

"All things seem to come round to me if I wait," he said. He spoke of the things he wanted to do—to put into bronze some of the splendid poses of American workmen.

"Like that," I suggested, pointing toward the street.

A mounted lamp-lighter came dashing up to the corner, and lighted the lamp, almost at gallop. He lingered on the eye with a superb backward twist. We looked at each other.

"There is one! Right at your door."

"I know it," he replied. "I watch for him every night. I'll do him sometime."

"You must. And that mail-clerk in the mail-car, too." I had called his attention, on the way down, to the splendid pose of a railway postal clerk in a car-door. He was dressed in a thin white shirt and white duck trousers. His neck was bare to his breast, and his lithe figure was splendid to see as he stood there leaning to catch a breath of air.

"There are a million subjects for the finest artist right here and now," he said.

"What I like about your whole campaign, Kemeys, is this: You've been yourself, you've been American, you've stood for original research all through. It hasn't been *commuck* all the way, but it's going to count in American sculpture. Like Howells and Whitman and Riley, you've taken things at first hand. No doubt of that."

"I've tried to," he replied. "It would be a great pleasure to me if I could aid the young sculptors to go ahead in their own way and do the things that are characteristic of America."

"Your example will do that; but it will be all the better to let them know by word as well as deed."

I wish I might represent the vigor and variety of his phrase. He uses figures drawn from his army life, and also from his life among the hunters; and, in addition, he has caught peculiarities of expression both of face and hand from the Indian, and to finish with he has, of course, his own individual short-cuts to instant expression. But his picturesque freedom of diction must not be allowed to belie him. He is in deadly earnest, and is a man of great natural tenderness and refinement. He has cherished his ideal through days of evil report. For twenty-five years he has surrendered himself to an art which is either conventionalized or commercialized in America. He has tried to make it original and not imitative.

"OLD EPHRAIM" SITTING.

From a sculpture by Kemeys.

Success seems his at last, but he cannot rest. His brain is teeming with things to do, and he has whole droves of studies pinched out of clay, waiting to be put into bronze. He has had dark days, days of poverty and apparent defeat, and yet something, some reserve power, has brought him through. He considers this power outside himself. I consider it within himself.

Edward Kemeys represents in large measure the true genius of American art—an art which springs direct from a knowl-

BAY LYNX WATCHING A WOOD-RAT'S HOLE.

From a sculpture by Kemeys.

edge of nature and a fearless love of truth. It is a fine exemplification of the scope and variety of the new art, that it can produce artists so diverse and yet so fundamentally harmonious as James Whitcomb Riley and Edward Kemeys.

Of Mr. Kemeys's rank and quality as a sculptor I do not intend to speak at any length; rather I have aimed at putting before the reader the appeal he made to me as a man, his sturdy purpose to serve American sculpture, and his love for nature—not lawns, clipped and trimmed with evergreens, but the wild lands where man is only another sort of insect crawling about.

When I talk with him it is not of Greece and Rome and the "mournful decadence of the modern," it is of winds and woods and mountains. We cross once more the plains, we thread the Black Cañon, we sleep beside the geysers and climb the Big Horn Mountains. The boom of the wild chicken sounds again, the grizzly swings his hog-like snout, the wolf sentinels the butte—all those fresh and unworn themes which the Western man is heir to, come sweeping back as I sit and talk with the old hunter sculptor.

I do not wonder that the Eastern city-dweller wonders what it all means. No man who has not set his foot beyond the ranks of pioneers can understand the strange, half-jubilant, half-sorrowful feeling with which we recalled those sights and sounds. Soon these splendid contrasts will be gone, and to Edward Kemeys will be much honor for catching and perpetuating in sculpture some part, at least, of this manifold appeal to the seeing eye.

AFTER THE CHASE.

From a bas-relief by Kemeys.

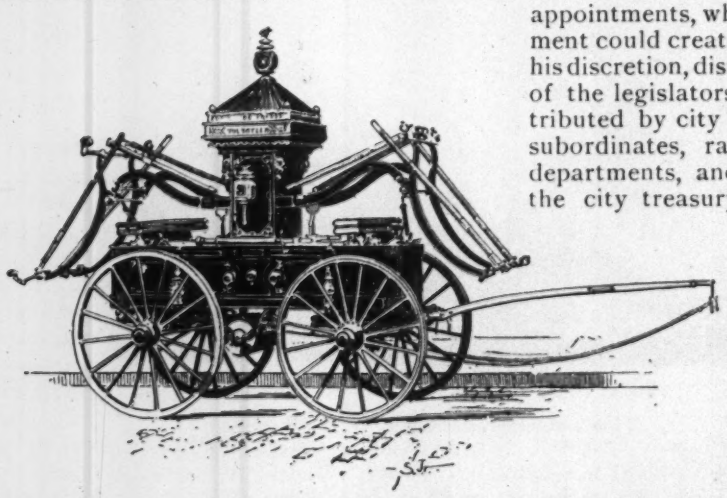
THE RISE AND OVERTHROW OF THE TWEED RING.

CHAPTERS IN THE HISTORY OF TAMMANY.

By E. J. Edwards.

IN the early fifties, William M. Tweed, who had worked as a journeyman at the trade of chair-making, became what was called in the slang of the politicians of that day, a "bunker." That is to say, his only occupation was loafing in the engine-house of one of the volunteer fire-companies. He had failed in business as a chair-maker, and he had been attracted by the excitement of politics as conducted at that time by Marshall Rynders. He gained the friendship of a man named Boole, a minor politician of poor repute, and Boole taught him the tricks of the primary and showed what could be accomplished with a gang of roughs in what was called "politics." So apt a scholar did Tweed prove that he soon attracted the attention of the Tammany leaders, became foreman of "Big Six" engine company, and was known as an active political leader in his district. He had no other conception of politics than that which was taught in the engine-house and at the caucus, and was phrased in the queer and hardly intelligible slang of the political gangs.

Early in his political career he was elected to Congress, where he was as listless and lonesome as he would have been in the English Parliament. He was also chosen a member of the Board of Aldermen. But he very soon learned the lesson laid so well to heart by many other Tammany politicians, that politics might mean personal pecuniary gain, and that the swiftest way to acquire influence and the opportunity for gain, was by service in the State Legislature. It is one of the axioms of Tammany Hall that the State Senate is a political post far more to be desired than a seat in Congress. He was elected to the State Senate during the administration of Governor Fenton, and he continued to serve there until the time of his trial.

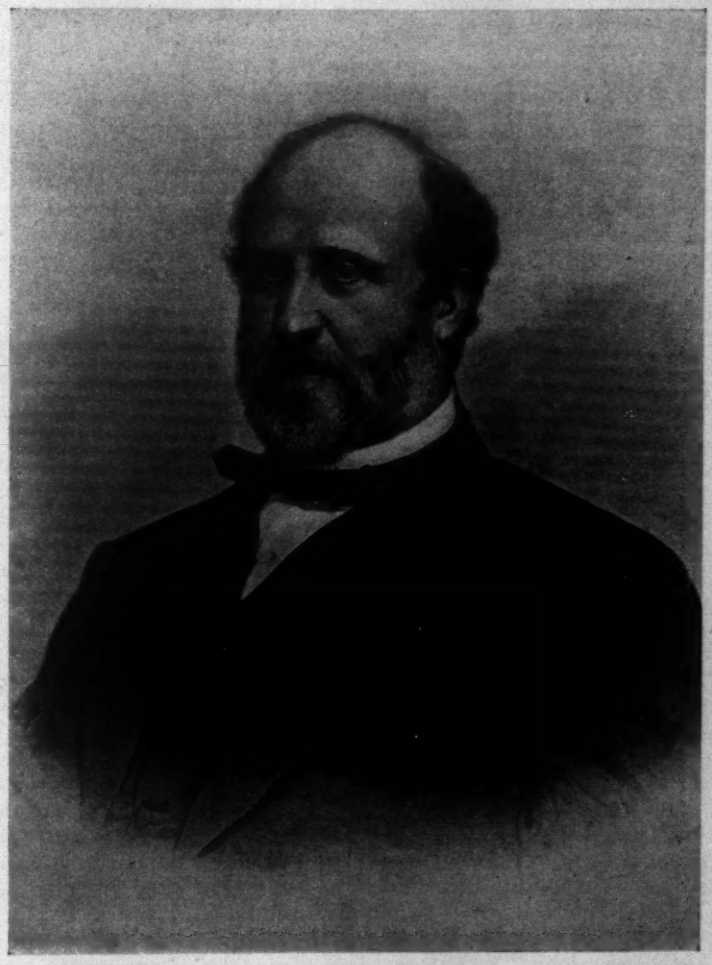


THE "BIG SIX" FIRE-ENGINE.

THE AUTOCRATIC BOARD OF SUPERVISORS.

When Governor Tilden was asked to what special influence or opportunity the Tweed or Tammany ring owed its origin he replied: "The Board of Supervisors. That body was created in 1857. We had a body composed of six Republicans and six Democrats, to change a majority of which you must necessarily control the primaries of both the great national and State parties for four years in succession. Not an easy job, certainly." Under a board so autocratic there easily and inevitably came about a state of the city's affairs which Mr. Tilden, writing to a friend, described in these words: "The lucrative city offices; subordinate appointments, which each head of a department could create at leisure, with salaries in his discretion, distributed among the friends of the legislators; contracts; money contributed by city officials, assessed on their subordinates, raised on jobs under the departments, and sometimes taken from the city treasury—were the pabulum of corrupt influence which shaped and controlled all legislation. Every year the system grew worse, as a governmental institution, and became more powerful and more corrupt. The executive departments gradually swallowed up all local powers, and themselves were made

deputies of legislators at Albany, on whom alone they were dependent. The Mayor and Common Council lost all practical influence. There was nobody to represent the people of the city. There was no discussion; there was no publicity. Cunning and deceptive provisions of law, concocted in the secrecy of the departments, commissions, and bureaus; agreed upon in the lobbies at Albany between the city officials and the legislators, or their go-betweens—appeared on the statute books after every session. In this manner all institutions of government, all taxation, all appropriations of money from our million of people, were formed. For many years there was no time when a vote at a city election would in any practical degree or manner affect the city government." Under such favoring conditions the formation of a Tweed or some other "ring" was only a question of time.



WILLIAM M. TWEED.

HOW TWEED MADE OFFICE "PAY" FROM THE VERY START.

Tweed was, while senator, also president of this curious Board of Supervisors. He was also a deputy street commissioner, and had authority to appoint as many as a thousand officeholders, many of whom did no work except to serve him, but yet were paid out of the city treasury. He was also enabled to secure lucrative posts for men of influence. Making the most of these means, his power in Tammany gradually grew greater and greater, until at last he became its actual master, although not its nominal. He had as associates in Tammany such men as Mr. Tilden and Abram S. Hewitt, men who had the highest respect of the community. But when it became plain that in his control of Tammany he purposed public corruption, these men, after a brief struggle, retired from active association with the organization.

In 1863 Tweed was a poor man. In 1868 he was a rich one, and this was before the organization of the Tweed ring. As a member of the Board of Supervisors, which had the power of auditing accounts, he was able to secure various privileges which were frauds upon the city. For instance, he got control of a little newspaper, and he secured the passage of a bill by the legislature making this obscure sheet the official organ of the city government, and it received over a million dollars a year for simply printing the proceedings of the Common Council. He established a printing company, whose main business was the printing of blank forms and vouchers, for which in one year two million, eight hundred thousand dollars was charged. Another item was a stationer's company, which furnished all the stationery used in the public institutions and departments, and this company alone received some

three millions a year. On an order for six reams of cap paper, the same amount of letter paper, two reams of note paper, two dozen pen-holders, four small ink-bottles, and a few other articles, all worth not more than fifty dollars, a bill of ten thousand dollars was rendered and paid. Tweed employed certain persons as the executive heads of these companies who were also upon the city pay-rolls, some receiving money for work never done.

THE NOMINATION OF SEYMOUR.

In 1868 Tammany received a flattering recognition from the Democratic party of the United States. It had just completed its new building upon Fourteenth Street, a fine structure admirably suited to the purpose of the society. It was honestly built, and therefore economically built. It had a large hall suitable for conventions, and the National Democratic Committee accepted an invitation to hold the National Democratic Convention there.

Mr. Tilden, then prominent in Tammany, was the chairman of the Democratic State Committee; and it was the purpose of Tammany Hall, although Tweed himself was not particularly interested, to secure the nomination of Horatio Seymour of New York for the Presidency. In order to disguise this purpose, the name of Chief Justice Chase had been so skilfully used that many persons believed the convention would surely nominate him, on the ground that having been an old free-soil and war Democrat, he would, while holding the full strength of the Democratic party, attract many Republicans.

In some parts of the West, where the Democratic party was committed to the greenback policy, an earnest effort was made to secure combination upon George H. Pendleton, and the Tammany influence was subtly used to encourage the Pendleton movement. At the same time the New York Democrats themselves brought forward the name of Sanford E. Church. Mr. Tilden directed the manœuvres which had the nomination of Seymour in view with marvellous adroitness. Chase's name was dropped at just the right moment, and it was made to appear that Mr. Pendleton was likely to be nominated.

On the day the convention met in July, 1868, Tammany Hall was filled with an enthusiastic and excited throng. Mr. Tweed and his associates were not conspicuous, but they were there; and it was then that Tweed, sitting in a remote place on the platform, turned to one of his friends and said: "We will name the President next time." There is no doubt that he had in mind, even then, to secure the political domination of New York State, and, perhaps, in 1872 to bring about the nomination of John T. Hoffman, then Mayor of New York, for the Presidency.

At just the right moment the name of Mr. Seymour, who was chairman of the convention, was brought forward as that of a compromise candidate. Thereupon Seymour retreated in a confusion which his enemies said was simulated, and his friends declared was real. But he was brought back, and, in spite of his declination, accepted the nomination.

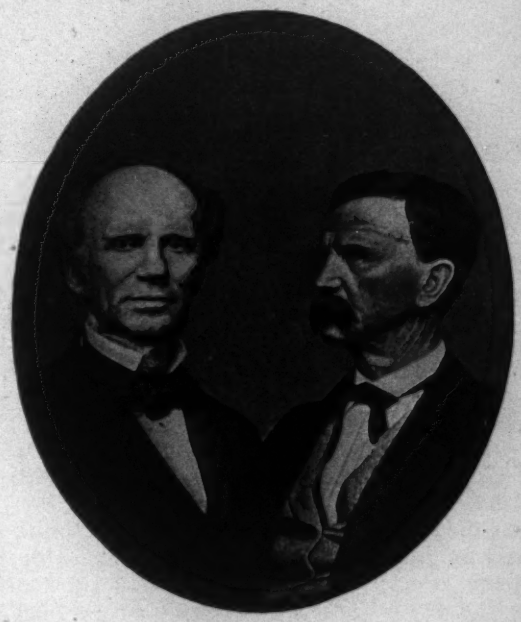
If Tweed had but little part in the nomination of Seymour, he had most important relations to the canvass which followed. Mr. Hoffman had been nominated for Governor. The opposing Republican candidate was John A. Griswold of Troy, a man to whom the country owes a debt of gratitude unacknowledged to this day; for it was his money and his faith which made it possible for Ericsson to build the little monitor which put an end to the naval power of the Confederacy, and revolutionized the naval warfare of the world.

With the inspectors of election under his control; with the Police Board, even the Republican members, subservient to him; and with the machinery of election entirely in his hands, Tweed awaited election day with perfect confidence. Those who remember him as he appeared during that canvass recall a man with a sneering smile upon his face whenever he spoke of the Republican hope of victory in New York State. He had become so audacious that he told not only his friends, but even his enemies, "We are in the business of carrying elections, and we propose to do it." He cared little about the vote for the Democratic candidate for President, since he knew that General Grant's election was assured with or without the electoral vote of New York; but he proposed to have Mr. Hoffman in the Governor's chair. He had been careful to secure, in certain Republican districts, the nomination of Republicans for the State Senate who he knew would be friendly to him.

THE FRAUDULENT ELECTION OF 1868.

There is, of course, only moral proof of the frauds which were practised in the elections of 1868. Ex-Judge Noah Davis, the

judge who tried Tweed, speaking of these frauds recently said: "They were colossal, and embraced every known method of corruption in the ballot-box." There were thousands of fraudulent naturalizations. Foreigners were rushed through courts whose officers were friendly to Tweed and Tammany, with such haste as to be shocking to the sense of propriety even of some of the hardened politicians. Then, to make all perfectly sure, Tweed directed that the declaration of the vote of New York City be held back on the night after the election until enough returns had been received from other parts of the State to make a reasonably close estimate of the Republican majority in the rest of the State. This was done; and when the figures were in Tweed's possession, the orders were given by some one to report the vote of New York City sufficiently large upon the Democratic side to overcome the ascertained majority. The best estimate is that General Grant and Mr. Griswold, on an honest vote, carried New York State by not far from twenty thousand majority. But the returns gave the State to Seymour for President and Hoffman for Governor. The New York City vote was on this occasion about the last announced, although always before it had been among the earliest.



SEYMOUR AND BLAIR.

THE TWEED RING CONSUMMATED.

It is now known why Tweed was so determined to carry the election of 1868. The scheme for the ring had undoubtedly at that time been thought out and perfected. It was necessary for his purpose that there should be a governor at Albany complaisant and not disposed to meddle much with legislative matters. It was necessary, moreover, that there should be a legislature, or at least a senate, which Tweed could control. The scheme worked out admirably; and the ring matured on the 1st of January, 1869.

In the ring the man who, in point of influence and personal profit, ranked next to Tweed was Richard B. Connolly, city comptroller. Connolly was a native of Ireland, the son of a village school-teacher, with a natural aptitude for mathematics. Coming to the United States as a lad, he became a clerk in a bank—the same bank of which afterwards for many years William L. Strong, the present Mayor of New York, was president.

Taking up politics of the rigorously practical kind, Connolly made such rapid progress that he was elected to the important office of county clerk. It has been charged that at the time of his election he was not yet a naturalized citizen. In this office he kept "politics" in constant view, especially in the disposition of patronage. But he soon realized, exactly as Tweed had realized, that to accomplish his full ambition he must also get himself in close relations with the State legislature. So he did as Tweed had done—got himself elected to the State Senate. As senator he was suspected, and, in fact, openly accused, even by some of his Tammany associates, of having made money improperly out of his position. In 1868, when the corrupt men secured absolute control of Tammany Hall, Connolly was able to secure the nomination for city comptroller. He was never fully trusted by Tweed and the other members of the ring, for he was regarded as a man who might prove false even to the friend who had served him most. This unreliability won him the name of "Slippery Dick," a name that clung to him until his death.

In the comptroller's office Connolly found his opportunity, as Tweed found his in the posts of supervisor and deputy street commissioner. His facility in handling accounts served him well. He discovered, for instance, that by varying

the phraseology of the titles, accounts might be duplicated; by using different phraseology he might make up fictitious pay-rolls by representing the names to be those of persons temporarily employed in the city departments.

Another man whom public suspicion, at least then, associated prominently with the ring was Peter B. Sweeny, who held the office of city chamberlain. But Mr. Sweeny was never tried, although he returned to New York after several years absence in Europe following the exposure; and no evidence of his connection with the ring has been discovered. He and his friends always stoutly maintained his innocence.

That the ring began operations very soon after the 1st of January, 1869, was made evident in the final investigation. The earliest in the list of county warrants bearing indication of fraud bore date January 11, 1869; and of eleven million, two hundred and fifty thousand dollars of fraudulent warrants afterwards discovered, three million, eight hundred thousand dollars were issued in the year 1869.

RICHARD B. CONNOLLY.

Tweed had managed to make close friends of two, at least, of the higher members of the judiciary of the State, and trusting to this friendship (which subsequently led to an impeachment of one of the judges) he stood in no fear of the courts. The other judge resigned just as impeachment proceedings were to begin.

TWEED AND FISK.

Tweed had also become intimately associated, although perhaps not in a political way, with the notorious "Jim" Fisk. Mr. Tilden, speaking of this friendship, said: "I have reason to believe that Tweed was a partner in the freebooting speculation which laid behind the orders granted by Judge Barnard to Fisk against the Pacific Railroad Company." Tweed's son was appointed receiver of the company by Barnard. This case has a further significance in this connection in that it was the first formal identification of Mr. Tilden with the opponents of the ring. He had been asked by Fisk to represent him in the case, Fisk boasting that he had paid a counsel during the year a fee many times larger than the largest Mr. Tilden himself had ever received, and adding, "We don't want anybody else; we want you." In this Mr. Tilden perceived an indirect method of buying his own silence, and he refused the retainer, and accepted a much smaller one to represent the other side.

Mr. Tilden, about this time, determined to use all his power as a political leader to secure the nomination and election of a judge of the highest ability and the most incorruptible character, feeling that the most serious feature of the whole situation was the rottenness of the judiciary. "We could organize against corruption," he said; "we could fight the scoundrels, and we could appeal in confidence to the people, if we were sure of an honest judiciary. But Tweed's methods have been so subtle and far-reaching that he has debauched the judiciary itself; and with the legislature and the judiciary against us, there is nothing left for the people but revolution."

A portion of the people, however, were very well content with the situation. Tweed curried favor with the poor by distributing coal and flour, and making ostentatious presents of money; and these "charities" are remembered to this day in the poorer parts of New York City, and Tweed is esteemed by many as the victim of injustice, and a man who suffered because he was the friend of the people.

The end which Mr. Tilden thought necessary before a general reform could even begin, was finally attained in the election

THE AMERICUS CLUB HOUSE, AS SEEN FROM TWEED'S ISLAND.

From a photograph by Isaac L. Mead, Greenwich, Connecticut. The buildings were turned later into a hotel, and a short time ago they were torn down.

of Judge Brady; and Mr. Tilden said that when that was accomplished he breathed easier, because he knew that so long as they had a judge in the higher court who would set aside injunctions and corrupt orders as fast as the Tweed judges issued them, so long it was possible to hope for the overthrow of this corrupt association.

A revolt broke out, finally, in Tammany Hall. The more reputable element of that association, in combination, it must be said, with some whom jealousy of Tweed's power and suddenly acquired wealth had driven into opposition, formed an association for the purpose of driving Tweed and his companions out of power in Tammany, and by means of a new city charter depriving them of their unreserved control of the city government.

This brought on the contest of 1870, as it is known. For the first time in many years Tammany and the Democracy controlled the State legislature. They had one majority in the Senate, and seven in the Assembly. The Democratic party elsewhere in the State were pledged, in Mr. Tilden's phrase, "to restore local government to the voting power of the people of the city." In their own local government the people of the city of New York were completely powerless. It was proposed that the new charter should restore to them their sovereignty.

THE AMERICUS CLUB.

Tweed and his associates were now living, with vulgar display, in the most princely fashion. Tweed himself maintained two costly houses in Fifth Avenue and kept expensive stables. He had organized within Tammany Hall, for social purposes, what was called the Americus Club. A summer home for the club was established on Long Island Sound, at Greenwich, Connecticut, and money was spent like water in building and furnishing. Tweed ordered from Belgium a great carpet, all woven in one piece, of exquisite design and workmanship, so perfectly made that after twenty years, and under the tread of thousands of feet, it is scarcely worn. For it was paid the highest price the Belgian manufacturers ever received for a single product of their looms. One of Tweed's followers, a man who a few years earlier had been a laborer upon the streets, said, as he walked upon it, "Why, it is as thick as a beefsteak." In this clubhouse feasts costing thousands of dollars were held, the wines, the most necessary item, being the choicest to be obtained in the markets of the world. The club obtained a national reputation. Upon one of the near-by little islands there was set up a wooden liberty cap, which had been the emblem of the old "Big Six" engine company. It remained in place many years after Tweed's downfall, being

at last stolen, as is believed, by some relic hunter.

In another part of the town of Greenwich, Tweed discovered what he regarded as a perfect place for a summer home for his family. But the owner had no disposition to sell. A fair price for the property would have been five thousand dollars. Tweed offered three times that, and still was refused. Tweed said to his friends that he proposed to have the place even if it became necessary for him to buy up the whole Connecticut legislature, a body in which his influence was already felt. One day he met the owner, and said to him, "Why do you object to selling me that place?"

"Because it seems like selling myself out of house and home."

"But if I give you enough for it, you can buy yourself another home."

"But you won't give me enough for me to do that."

"How much do you call enough?"

"I'll name a figure so big that it will scare you away, and that will be the end of it."

"Name your figure, and let's see whether it will," said Tweed.

"Well, suppose I say sixty thousand dollars?"

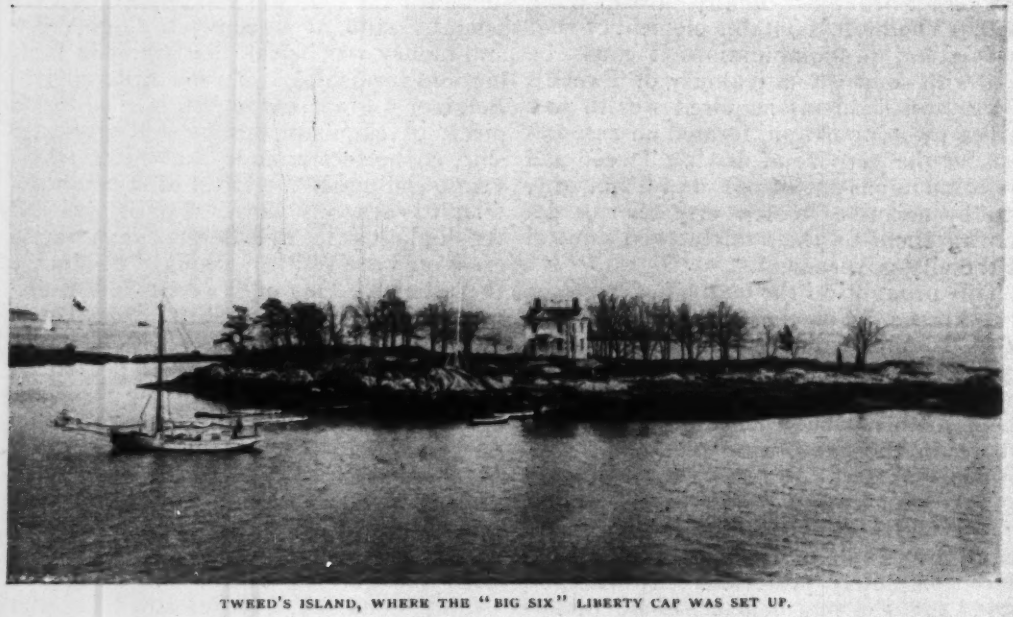
"Would you take sixty thousand for it?" demanded Tweed.

"Nobody would be crazy enough to give it."

"Well, we'll see about that," said Tweed. He took out a pencil and made a memorandum, setting forth that the man agreed, within thirty days, to give a title to that property upon the payment of sixty thousand dollars; and then, handing the paper to the man, said, "I'll give you a dollar if you sign that." It was an easy way of getting a dollar, the owner thought. He signed, and took the money, and within the month Tweed compelled him to live up to the memorandum, and thus became the owner of the place.

THE NOTORIOUS TWEED CHARTER.

The men who were moving for a new city charter knew, of course, that Tweed would oppose them, but they never dreamt that his opposition would take the audacious form it did. He came forward and proposed a new charter himself, a charter so cleverly drawn that its enactment would increase the ring's power far beyond what it already was. Mr. Tilden was sitting in his office one day when a gentleman called upon him and said: "Mr. Tilden, that charter of Tweed's is bound to pass the legislature. It is going to be bought through. The 'stuff' has already been sent up." The report proved only too well-founded; the "stuff" was distributed with a free hand. Mr. Tilden himself, writing to a friend, said, "on the authority of Judge Noah Davis," that the price paid to each of six leading Republican senators was ten thousand dollars for a vote for the



TWEED'S ISLAND, WHERE THE "BIG SIX" LIBERTY CAP WAS SET UP.

From a photograph by Isaac L. Mead, Greenwich, Connecticut.

charter, five thousand dollars for a vote for the kindred bills of the session, and five thousand for similar services the next year. While preparing the present article, the writer asked Judge Davis if these figures were correct. He said that he, of course, had no personal knowledge, but that he had the best reason for believing that these were the sums paid. The Tweed charter, it is hardly necessary to add, passed.

The new charter, for one thing, vacated the office of street commissioner within five days, and vested all the powers of the office in a commissioner of public works to be appointed by the mayor for a term of four years. Tweed was appointed. The governor had no power to remove him on charges. He could only be impeached through charges made by the mayor, and could only be tried in case every one of the six judges of the court of common pleas was present.

SAMUEL J. TILDEN.

It reorganized the parks department so that three of the five commissioners became, for terms of five years each, creatures of Tweed's. The department of police was turned over bodily, for from five to eight years, to men whom Tweed had fixed upon, two of them being nominal Republicans. A Board of Audit was created, consisting of Tweed, Connolly, and Mayor Hall.

The ring began its harvest at once. A meeting of the Board of Audit was held, and Tweed and Connolly made an order for the payment of six million, three hundred and twelve thousand, five hundred dollars, ninety per cent. of which went into the pockets of the members of the ring. Of this sum Tweed got twenty-four per cent., Connolly as much as twenty per cent., and thirty-three per cent. went to the tradesmen and mechanics who furnished the fraudulent bills. What could be simpler? With payment assured, there need be no limit to the raising of bills.

MAKING A PERSONAL CONVENIENCE OF THE COURTS.

Two illustrations may be given to show how Tweed relied upon the courts to punish enemies, and also to add to his gains. The first corporation formed in New York City for the manufacture of gas had for more than forty years carried on its business with conspicuous fairness and honesty. Tweed, perceiving the vast profits that might come from the establishment of other gas companies, and the compulsion which he might bring to bear to force the community to use the product of these corporations, filed an application in the courts (or at least so it was claimed, for the application was not in his name) to enjoin the company on the ground that it was carrying on a nuisance. The defence was committed to a young lawyer (it was, in fact, his first case), who has since achieved great prominence—Mr. Francis Lynde Stetson. He it was who discovered the purpose that lay back of the suit. He was beaten in the inferior court, but upon appeal won his case.

The intimacy between Fisk and Tweed continued until Fisk's death at the hands of an assassin. Fisk had been made very angry by some comments on himself published in the "Springfield Republican," and he determined to be revenged. Mr. Bowles, the editor of the paper, happening to be in New York, was arrested upon complaint of Fisk, thrust into prison, denied opportunity to see counsel or friends, and kept for many hours in a cell. At last friends heard of his incarceration, and were able, after a good deal of trouble, to secure his release upon bail. What Fisk and Tweed had intended was, however, accomplished. They had subjected Mr. Bowles to great discomfort, and had, perhaps, warned others who might have been

disposed to make public accusations that the part of prudence was to remain quiet.

DESPERATE EFFORTS TO SILENCE THE PRESS.

At the height of his power it became Tweed's purpose to silence in one way or another the press and all individuals who were making accusations against the ring. Therefore he procured the passage by the legislature of a bill which gave the judges unlimited power to punish summarily whatever they deemed to be contempts. Such an authority might have landed every editor and every public speaker who condemned the ring in the penitentiary, and without any right of appeal from the judgment of the ring judge. Tweed had been very liberal in the expenditure of dishonestly-acquired money, in order to silence the press. It was in his power to award at discretion two million dollars' worth of advertising. But even with that enormous influence he had not been able to silence all of the editors, and finding that some were unpurchasable, he determined to coerce them in this other way.

The measure is understood to have been devised by Judge Cardozo, and the summary power it gave was designed to be wielded by him and Judge Barnard, the ring judges, one of whom was afterwards impeached, while the other resigned to escape impeachment. It was passed without a dissenting vote in either house of the legislature. *How* it was passed may be inferred from a statement of Mr. Tilden's, that the chairman of the Committee of Conference, who manœuvred it through, was a Republican senator who admitted afterwards the borrowing in one instance of ten thousand dollars from Tweed, which he had not repaid. The bill was finally vetoed by Governor Hoffman.

In the winter of 1871 Tweed lived in Albany with all the state of a sovereign who had prodigious favors to bestow, or awful penalties to enforce. He was surrounded by a vulgar crowd of sycophants. He sat in his room, a frank cynic, despising his creatures, and yet with an affectation of comradeship, of hearty democracy, which, deceiving many, caused them to say that Tweed was not half so bad as he was painted; that he had a good heart, and that he was conspicuous only because he was abler than others. The air was filled with accusations. Tweed only smiled at them. There seemed never to have entered his mind a suspicion of the power that lies in public opinion, once it is fully aroused. As he had been associated all his days with men who sold themselves, he was persuaded that every man had his price. His power at this time has been characterized in this way. "He and his associates wielded the enormous patronage of offices and contracts. They swayed all the institutions of local government, the local judiciary, and, in a word, everything below the Court of Appeals. They also controlled the whole machinery of election. New York City with its million of people, with its concentration of vast interests of individuals in other States and in foreign countries, with its conspicuous position before the world, had practically no power of self-government."

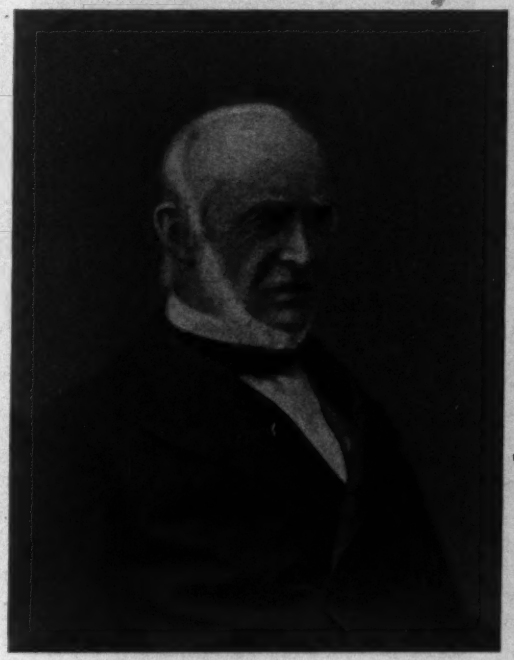
There seemed to be no possible way of overthrowing the ring, except by the election of members of an anti-ring legislature, and the possibility of that did not concern Mr. Tweed very much. In fact, when asked to contribute largely to the campaign fund, he replied that it was not necessary, for it was cheaper to buy members of the legislature after they were elected. The difficulty that confronted those who made charges of corruption, was the impossibility of getting proof to sustain them.

THE "TIMES" DISCLOSURES.

In July, 1871, the New York "Times" published the first of a series of copies of accounts as they were entered in the books of the office of the comptroller. The copies had been surreptitiously made by a clerk who, it has always been supposed, was induced to make them by James O'Brien, a politician who knew the Tammany men thoroughly, and who, in fact, was one of the leaders of what was called the Young Democracy Movement, which was designed to overthrow the power of Tweed in Tammany Hall. These accounts revealed the time and the amounts of payments made by the comptroller, the names of the persons to whom the payments were made, and what they purported to have been made for.

At these disclosures Tweed himself only continued to smile that sneering smile with which he had received every accusation, but some of his associates were frightened. Anyone the least familiar with book-keeping could see by these accounts that they contained a history of enormous frauds. The lawyers believed, however, that while morally convincing, the published accounts did

not in themselves furnish evidence sufficient to justify legal action. Mr. Tilden said afterwards: "The statement made me believe that municipal frauds had been committed immeasurably transcending anything that I had ever suspected, and they furnished a sort of evidence capable of acting strongly upon the popular mind." He himself decided to give his whole time to the matter, and he called into conference with him Francis Kernan, a lawyer of the highest integrity and of great ability, afterwards a United States Senator. In their first interview Mr. Tilden laid down the general programme of attack on the ring, exactly as it was afterwards made, excepting the impeachment of the judges. As a result of the interview, Mr. Tilden called upon Mr. Charles O'Conor, then the leader of the American bar, and asked his coöperation in getting at the true state of affairs. An idea of the difficulties that confronted them may be gathered from the fact that the Board of Aldermen, who had power under the law to compel disclosures, were all of them the personal tools of Tweed, and that any grand jury which might be summoned was sure to be under the same influence. The local officers, who were the ones to initiate civil actions, were themselves, or most of them, partners in the conspiracy. Tweed controlled the prosecuting officers, and the selection of juries was within his power. Mr. O'Conor consented to aid in the investigation, and only upon the condition that he should receive no compensation. Meanwhile there had been a public committee organized, known later as the Committee of Seventy. This committee proposed to act independently of the lawyers or the Bar Association, but in sympathy.



CHARLES O'CONOR.

From a photograph by Handy, Washington.

THE RING ALARMED.

But suddenly the investigation received a most important furtherance from a most unexpected quarter. One morning, some two months after the disclosures published in "The Times," a messenger called upon Mr. Tilden from Comptroller Connolly. Comptroller Connolly, whom Tweed had always despised as a man of "no nerve or sand," had become persuaded that it was Tweed's purpose to offer him up as a sacrifice to appease public sentiment, on the charge that the frauds had been committed in his department, by his connivance, and for his exclusive benefit. This the messenger explained to Mr. Tilden, and asked Mr. Tilden's advice, suggesting that perhaps Connolly better resign his office.

Mr. Tilden, without committing himself, promised another interview, meanwhile saying that he would consult with Mr. Havemeyer, who was the chairman of the Committee of Seventy. Later he and Mr. Havemeyer went to Mr. Connolly's house, and although the comptroller was in bed, ill either with nervous apprehension or actual disease, they talked with him briefly, and saw him again the next day.

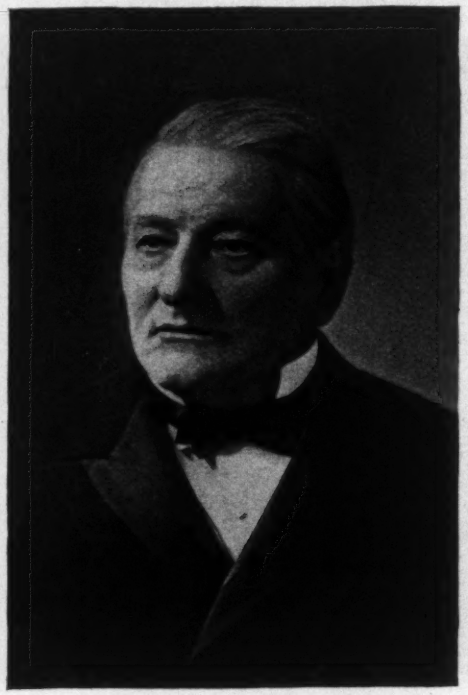
Mr. Tilden suggested that Connolly appoint Andrew H. Green his deputy, and then surrender the office to him. This was done, and Mr. Green became the executive power in the comptroller's office. That was the first act that startled Tweed; he became thoroughly frightened. Mr. Green, in possession of the comptroller's office, had the power to examine and publish all of his expenditures under the ring, and to prevent any continuation of the fraudulent practices.

MR. TILDEN'S ANALYSIS OF FRAUDULENT CHECKS AND VOUCHERS.

Soon after Mr. Green took possession, an attempt was made to burn all the vouchers, and was partially successful. Of the charred scraps of vouchers surviving,

great bundles of them, Mr. Tilden was engaged for some ten days in making a searching analysis which furnished legal proof of the crime. He succeeded also in tracing through one of the banks the checks which had been issued in payment of the accounts which the vouchers purported to represent.

Tweed fought with courage. He had unlimited money; he controlled Tammany Hall, a part of the judiciary and the local offices, and he proposed to force Connolly to resign, so that Mr. Green's power as deputy might end. It was expected that he would appeal to some one of his judges to get a judicial order ejecting Green from the office; and for some time Mr. Tilden had a cab always in waiting to take him on the instant to Judge Brady, so that any such order that might issue might be at once vacated. Mr. O'Conor, in the meanwhile, furnished a legal opinion, which was published, that no power of removing Mr. Green lay in the courts, and it became apparent that no judge dared to issue an order in the face of that opinion.



JUDGE NOAH DAVIS.
From a photograph by Prince, New York.

Mr. Tilden's study of the vouchers and the bank accounts, already mentioned, is pronounced one of the most remarkable pieces of analysis ever offered to the courts. Judge Davis, who sat upon the trial of Tweed, and heard this demonstration offered in evidence, said recently that it was as perfect a specimen of logic and mathematical proof as the books anywhere contained. With check stubs, charred vouchers, and other documents, Mr. Tilden was able to show the exact amount of money stolen in each given instance and the exact division of the spoils. It was a work that required his whole attention, with the aid of some half dozen assistants, for nearly two weeks. It was shown that only thirty-three per cent. of the amount of the bills which had been offered by persons for payment was ever paid to them, and that sixty-seven per cent. was divided among the members of the ring and their subordinates. The receipt of this money by some of the accused persons was also shown.

Of course the political effect of the disclosures was instantly felt, and at the next election much such a revolution as that which occurred in the fall of 1894 in New York City occurred. The opponents of the ring gained the majority in the legislature, swept the city, and by that act practically took away the last prop which the ring leaned upon for support.

In their bewilderment and fright, the members of the ring seemed for a time almost paralyzed. Some of them fled to Europe. Connolly went, never to return. Tweed, however, remained, believing that with his capacity to employ able lawyers to exhaust the resources of technicality he would be able to save himself from punishment, and probably to save, as well, a considerable portion of his vast wealth. The Attorney-General, associating with himself Mr. Wheeler H. Peckham and the District Attorney, Mr. Benjamin K. Phelps, and with Mr. Tilden advising, and prepared to furnish the most important evidence, began the prosecution of Tweed. To the lawyers, however, it seemed quite as important that the corrupt judges should be punished, and preparations were made for bringing articles of impeachment against them. It came to the ears of the prosecutors that a large sum of money was being raised to corrupt the impeachment committee of the Assembly in favor of the accused judges; but public sentiment was too powerful, the evidence of guilt too clear; both were driven from the bench.

It is impossible to make an accurate estimate of the total amount of money stolen by the ring; fourteen million dollars is believed to be an underestimate. The fraudulent accounts published in

"The Times" footed up eleven and a quarter millions, and Mr. Tilden, in his investigation, became satisfied that the ring had in near prospect some eighteen millions more, nearly all fraudulent booty, which it would have obtained had it not been overthrown. Furthermore, there is not the slightest doubt that Tweed expected to reach out to the State, and possibly to the nation itself. The frauds upon which the conviction of Tweed was obtained consisted in the payment of enormously increased bills to mechanics, architects, furniture-makers, and, in some instances, to unknown persons, for supplies and services. It was the expectation that an honest bill would be raised all the way from sixty to ninety per cent. In the first months of the ring's stealing the increase was about sixty per cent. Some of the bills were increased by as much as ninety per cent., but the average increase was such as to make it possible to give sixty-seven per cent. to the ring, the confederates being allowed to keep thirty-three per cent.; and of that thirty-three per cent., probably at least one-half was a fraudulent increase.

The first trial of Tweed revealed the fact that the influence of the ring had not been wholly overcome. It resulted in a mis-trial. On the second trial he was convicted, and upon a large number of counts, and sentenced by Judge Davis to an aggregate of twelve years' imprisonment. He might have been sentenced for sixty years, but Judge Davis decided that he would give him a sentence proportionate to Tweed's average share in the stealings; that is, that he would give him twenty per cent. of what he might have imposed upon him. At the end of the year, however, Tweed was released, the Court of Appeals holding that the sentence was contemporaneous; that is, that he could not begin to serve a new sentence of a year at the end of the term of service of punishment upon another count. He was, however, immediately rearrested upon a civil action to recover money stolen from the city, and, being unable to obtain bail, was kept in confinement in Ludlow Street Jail. There he occupied a very comfortable room, fared rather sumptuously, and entertained his friends. It was said that the only complaint he ever uttered in his confinement was of the ingratitude of persons who in his prosperity had shared his favor, and some of whom had been prominent in his prosecution.

Late in the year 1876, the city was astonished by a report that Tweed had escaped. The means and the way of his escape were never ascertained with certainty; but it is probable that by the connivance of some of the prison authorities he got to the East River, where a yacht was awaiting him, and that thence by way of Long Island Sound he sailed to Cuba. From Havana the government got information that he had taken passage to Spain, with which country we then had no extradition treaty. The good offices of the State Department were invoked, however, and the United States Minister to Spain was instructed to request the Spanish government, as a friendly act, to deliver Tweed, upon his landing, to the United States authorities. This Spain consented to do; and when Tweed stepped ashore at Cadiz he found himself again a prisoner. He was brought back in a Federal vessel to New York City, and returned to Ludlow Street Jail. He never went forth again alive, except on one occasion, when he was taken into court as a witness in a case in which testimony as to these ring frauds was necessary. For six days he was examined in great detail. It was said that he proposed to make a confession which would involve persons who had theretofore escaped prosecution. He, however, did nothing of the sort. His testimony was in some respects practically a verification of the charges which had been made against the ring, and inferentially it seemed to involve other persons, but it was not such as to justify any action or even a positive opinion. His steadfastness to his friends, and his unwillingness to betray even those who had proved unfriendly to him, won him a certain admiration.

It was evident at this hearing that Tweed's health was shattered, and that he had probably but a short time to live. He failed rapidly after the hearing, and a few months later died in prison. He had been in power less than six years. He had enjoyed wealth less than ten. In his last days, when reviewing his career, he said that he was satisfied of one thing: that until the officers of the city of New York, meaning the great body of subordinate employees, were protected by some sort of civil service system, so that they would not be the creatures of political favor, there would be corruption in the administration of the city government. "Human nature," said he, "cannot resist such temptations as are offered to men who are in power here, so long as they have the disposition of the offices of the city at their command."

A FLASH OF DARING.

A LOVE STORY.

By Mrs. E. V. Wilson.

MRS. MILLER was paring early apples for sauce; Mr. Miller, with a newspaper spread on the carpet at his feet, was scraping with a piece of glass an axe-handle to a desired smoothness; while Bessie, the five-year-old daughter of the house, stood, with a kitten in her arms, watching her father at his work.

Suddenly Mrs. Miller, with a half-pared apple in one hand and holding a knife threateningly in the other, exclaimed, "If there is anything in the world I despise, it's a dog in a manger, so it is!"

Mr. Miller looked up inquiringly. "Why, Marthy," he said, "what do you mean?"

"Just what I said," she answered sharply; "a dog in a manger! I'd like to know what else you'd call a feller that hangs around a girl, keepin' every other young man away, and hasn't courage enough to speak out and——" Here she was interrupted by the opening of the door near her, which led to the kitchen, while a clear, sweet voice asked if the apples were ready.

"Just about," said Mrs. Miller, deftly finishing the last one, and handing the pan containing them to the owner of the voice. This was Mrs. Miller's young sister, and a pretty picture she made with her sleeves rolled above her elbows, showing her plump, dimpled arms, her curling brown hair pushed back from her white forehead, and her face rosy with the heat. Little drops of perspiration stood around her lips, and as she wiped them away with her blue-checked apron, she said: "I guess I'll make a pie as well as the sauce; the men always like pie." She looked at her sister interrogatively.

"Of course, if you want to," said Mrs. Miller; "but it is so warm to bake, and there's cold bread and lots of cookies."

"I don't mind the heat," the girl said laughingly, as she closed the door and went singing merrily back to the kitchen.

"I can't see," said Mr. Miller, "why you are so anxious to have Lucinda marry; she's mighty nice to have around."

"I'm not anxious," retorted his wife, who was like an older edition of her pretty sister, "but I do say no man has a right to go with a girl and keep everybody else away unless he means to marry her; and I do say it's acting like 'a dog in the manger.' For here's Lucinda nearly twenty-three, and might have had lots of chances if it hadn't been for him."

Mr. Miller evidently thought silence the better part, for he made no answer, but scraped away diligently at his axe-handle. Presently he ran his hand up and down the surface of the wood, saying, "I reckon that's about right now."

"Let me feel it, pap," said the little daughter, and she imitated his movement so earnestly that her father laughed. "I dess it's all right, pap," she said; "it's peffectly slick."

"Come on then, Bessie," he said, rising from his chair, "and we will try to finish the job before supper."

They left the room together, while Mrs. Miller cleared up the scrapings of hickory and placed the chairs against the wall as vindictively as if the mysterious "dog in the manger" was being handled in the process.

You must not for an instant think that Mrs. Miller was an ill-natured woman, for she was not. She dearly loved the young orphan sister who had been with her for years, and really liked young Stebbins, the neighboring farmer's son, of whom she had spoken so contemptuously. But her ambition had been roused by the very evident desire of a rising young physician in the vicinity to visit her sister. She had an idea that a marriage with a doctor would increase Lucinda's prospects of a happy future, and was vexed that Lucinda did not seem to share her opinions, but showed a decided preference for Joe Stebbins, the aforesaid young farmer.

Poor Joe! What anguish he would have felt if he had known the thoughts Mrs. Miller harbored of him! He was a fine, manly fellow, but had such a humble opinion of himself that he never could do himself justice. He truly loved Lucinda Hart, and had repeated to himself a hundred times the very words in which he would tell of his love; but once in her

presence, doubts beset him, and one glance of her blue eyes rendered him dumb. Thus he was always at a disadvantage when with her.

As for Lucinda, we cannot tell what her feeling for him was. She was mischievously kind at one time, and saucily cruel the next. She laughed at him to his face, but quickly resented any one else doing so, and invariably defended him when her sister ridiculed or found fault with him.

A few days after the conversation we have recorded between Mr. and Mrs. Miller, Joe, in a new buggy, and driving his favorite horse Prince, drove up to Mr. Miller's gate for the purpose of taking Lucinda to a picnic in the neighborhood, as had been arranged by themselves the Sunday before. From her window Lucinda saw him, and, leaning out, she called to Bessie, who was playing in the yard, to tell Mr. Stebbins she was not quite ready, but would be in a few minutes. Bessie ran joyfully out, for she liked Joe, as she always called him, and, after delivering her aunt's message, begged him to take her "just a 'ittle ride."

"All right," said Joe, good-naturedly. "Give me your hands," and catching her up, he seated her by his side and drove off.

Bessie was delighted. She chatted gayly about any and every thing, while Joe, his thoughts intent on what he wished to say to Lucinda, was silent. The child was disturbed. She did not like this silence. "Joe," she said, "what makes you so still? Don't you like me?" Then, before he could answer, she exclaimed, "Oh, Joe! do you know what a dog in a manger is?"

Joe laughed. "You midget," he said, "what put that in your head?"

"Why, mamma said she 'spised 'em; they was allays round keepin' folks away," said Bessie.

Joe was quick-witted. The blood leaped to his face. "I deserve it," he thought, but he said, "Who was she talking to, Bessie?"

"Why, to pap, when he made the new axe-handle an' I helped him; an' it's a nice one, too, Joe," said Bessie. "Joe, do you like aunt? Pap says she's nice, tause she makes pie for supper; and oh, Joe, she laughed at Dr. Grey, an' mamma jes scolded her."

Joe's conscience pricked him, though his heart gave a glad bound, and he turned Prince around, saying, "I expect Aunt Lucinda is ready now. Let us see how fast Prince can go."

Lucinda was at the gate as they drove up, and Bessie was lifted out, laughing merrily and insisting on kissing Joe good-by, and telling him "not to run off with aunt tause she 'ooked so nice in her new dress."

"Nice," thought Joe, "she looks like an angel;" and such a feeling of unworthiness came over him that he scarcely lifted his eyes, and helped the "angel" into the buggy so awkwardly that her dress caught on the step, and she almost fell into his arms.

She laughed, however, saying, "It seems I never can get into a buggy without trouble; I do wish I was not so clumsy;" and Joe, without a word, seated himself by her side, and drove off grim as a statue.

When they arrived at the picnic grounds they found a gay crowd assembled, and Lucinda, being a universal favorite, was at once surrounded and hurried off to join in a game of croquet. And when dinner-time came and the baskets were unpacked, it was Lucinda who must superintend the arrangements.

Joe vainly tried to get near her. Dr. Grey was gracefully unconscious of being in anybody's way, and managed, somehow, to be of so much assistance in unpacking dishes, and rescuing pies and cakes from perilous places, that all the girls were calling on him for advice and help. And when dinner was ready he easily succeeded in placing himself at Lucinda's side, and kept up a constant stream of laughter and jest. If sometimes Lucinda cast a glance at Joe, who was heroically devoting himself to an elderly spinster, he was ignorant of it, and Miss Golden was so flattered by his attentions that she whispered to him that she had always felt that when congenial spirits met, a slight difference in age should not be considered, as the soul, knowing nothing of time, was always young.

Joe assented to the remark, as he would have assented to anything she said; but he thought, if his soul knew nothing of time, it was queer it should be so wretchedly tired and anxious for this particular time to end. But it ended at last, and Joe was once more in the buggy, with Lucinda by his side. That "impertinent puppy," as Joe inwardly called Dr. Grey, had lingered near her until Joe had gathered up the reins, when, with a bow and smile, he had mounted his own horse and galloped away. Now, as they sped over the prairie, Joe was fully determined to tell his love tale. "If she refuses me," he thought, "I can't feel

much worse, and it's just got to be settled. Mrs. Miller was right, and I'm a coward, but I'm in for it now;" and Lucinda, glancing at his face, was so startled at his determined look that she exclaimed in a half-frightened voice:

"Oh, Joe! what is the matter? You are so pale! Are you sick?"

"No," he said sharply. "I'm not sick. I—say, Lucinda, let's get married?"

And Lucinda said softly: "Well, Joe, let's."

In a twinkling Joe's arm was around her, and a jerk of the lines brought Prince to a walk.

"Do you mean it, Lucinda?" cried Joe. "Do you love me half as well as I do you?"

Lucinda pushed him away. "Of course I mean it," she said; "but there is a carriage right behind us. For mercy's sake, don't let them pass us!"

Joe shortened up, and Prince was off like a dart, while his driver waved his hand derisively at the occupants of the other carriage, now close beside them, and shouted: "No passes on this road." Lucinda leaned back in the buggy, half laughing, half crying, while Joe drove Prince with the air of a hero.

"What do you think your sister will say to us?" he said presently.

"If she had seen you to-day," said Lucinda, "I expect she would ask you how you supposed Miss Golden would feel when she found how basely you had treated her."

"Now, Lucinda," said Joe, whose bashfulness had somehow all left him; "whenever you say Miss Golden I shall ask after Dr. Grey's welfare;" and then the simpletons laughed as if there had been something very witty said.

When they drove up to the Miller homestead, Mr. and Mrs. Miller were in the front yard, watching the people going home from the picnic, and Mr. Miller came forward at once, extending his hand to assist Lucinda. But Joe called out, "You look after Prince, Miller, and I'll see to Lucinda; she belongs to me now."

"Is that so?" said Mr. Miller. "Well, all I can say is, you've got a nice piece of property. What do you say, Marthy?"

Martha caught her breath and a fence-post at the same time, and, before she could speak, Lucinda had slipped from Joe's grasp and was through the gate and in the house.

Then Mrs. Miller, having recovered herself, said, "Never mind, Joe, she's all right. But how in the world did you ever——"

Her husband interrupted her. "Come in, Joe," he said; "of course you will take supper with us."

"Of course, "said Mrs. Miller. "You will have to take 'pot luck,' but that's no matter; you're one of the family now, I reckon. Here, Bessie," as the little girl came running toward them, "come and kiss your Uncle Joe."

Bessie did not understand until matters were explained, and then, while she did not object to Joe as an uncle, she protested loudly against his taking her aunt away. Joe whispered, "I will give you the nicest little colt, Bessie, for, though nobody knows it, you helped me out of all my trouble;" and Bessie, if she was ignorant of how she had helped, was satisfied.

Mrs. Joe Stebbins tells her husband she knows no girl ever had a proposal like hers. "Why, Joe," she says, "you frightened me; your words came like bullets."

"Well," says Joe, "they hit the mark, any way. Let's have a kiss;" and, laughing, Lucinda says, "Let's."

But never has Joe said a word about Bessie's story of "the dog in the manger."

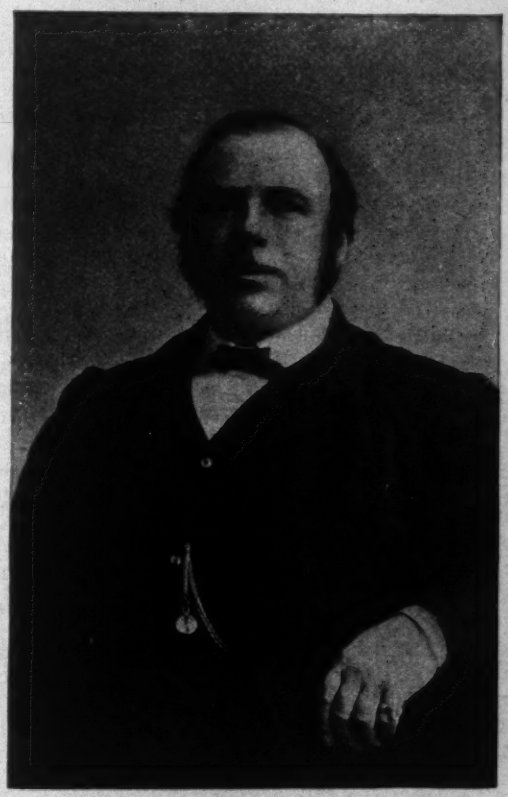
POSSIBILITY OF LIFE ON OTHER WORLDS.

RECENT DISCOVERIES BEAR OUT OLD ARGUMENTS THAT OTHER PLANETS MAY BE INHABITED.

By Sir Robert Ball,

Professor of Astronomy at the University of Cambridge, England.

NOTWITHSTANDING the wonderful advances in scientific methods which have been effected in recent years, a great problem still remains unsolved. We are still as far as ever from having attained any definite answer to the question as to whether life can exist on any of the other worlds. Vast as has been the progress in knowledge since the days when Whewell and Brewster discussed the question of possible inhabitants in other planets, a writer in the present day finds the problem which they attempted still hopelessly beyond his reach in so far as any determinate conclusions are concerned.



SIR ROBERT BALL, LL.D., F.R.S.
From a photograph by Elliott & Fry, Baker St., London.

But it seems worth while to take up the question afresh, inasmuch as some of the old arguments have acquired increased significance in consequence of later discoveries, while others are now seen to have lost something from the same cause. I propose, accordingly, to set forth some account of the present state of the argument, and to note whatever additional importance it may have acquired since the days when the habitability of other worlds was discussed by Brewster.

The standard argument in support of the belief that certain other planets might be inhabited was of this kind. It was noticed that the sun lies at the centre of a system of bodies which revolve around it, and that among these bodies the earth holds an intermediate place. It is nearer to the central luminary than are some of the other planets, while, on the other hand, it is more remote than others. The warmth and light received by the earth from the sun would, therefore, be greater than that received by some planets and less than that received by others. If some of the planets are much larger than the earth, then it must be remembered that other members of the same system are smaller than our globe, and that some of them are very much smaller. It was also pointed out that the earth in another respect is, as it were, a fair average specimen of a planet. Some of these bodies have moons revolving around them. It is quite true that Jupiter, Saturn, and Uranus are more richly endowed with attendant globes than is the earth ; but then Mercury and Venus appear to be unprovided with any moons. It was thus seen that in the matter of satellites, as well as in dimensions and in situation, our globe is an intermediate one in the system. This

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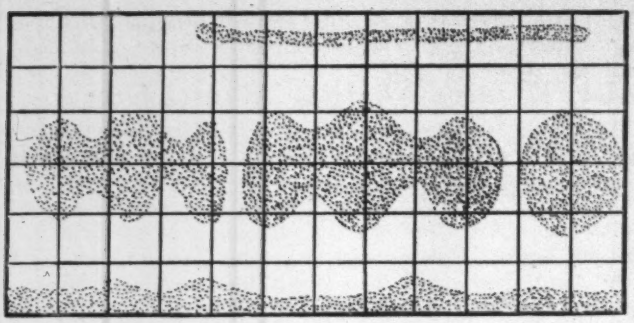


BIANCHINI'S MAP OF VENUS.

From Webb's "Celestial Objects for Common Telescopes."

conclusion was confirmed by the subsequent discovery that Mars had a pair of satellites, and Neptune a single one. Indeed, the claims of the earth to be a typical planet might be pushed still farther. A notable characteristic of a planetary globe is its density, that is to say, its weight in comparison with the weight of a globe of water of equal dimensions. Here, again, our earth appears in the light of a fairly representative object. It is much lighter, no doubt, bulk for bulk, than some of the other planets. It is, on the other hand, much heavier than others.

It is also noticeable, in this connection, that our globe is surrounded with a copious atmosphere, and this is an attribute which, of course, stands in an obvious and specially important relation to the question of the earth as an abode of life. Those who pondered on the possibility of life on other worlds could not fail to be struck by the fact that some of those other worlds were also surrounded by atmospheres. If these atmospheres, in certain cases, were excessively dense and abundant, and in others greatly attenuated, this circumstance alone would tend once again to illustrate the intermediate rank, so to speak, of our earth as a member of the planetary system.

The argument then ran in this wise. Regarding our earth as a globe which constitutes a member of the solar system, it can hardly be said to possess very extreme attributes. It does not appear to be marked out in any specially distinctive manner which would qualify it rather than certain of the other globes for becoming suitable abodes for life. The qualities which the earth possesses are, generally speaking, conferred upon it in degrees intermediate to those in which other globes of the system are endowed with similar qualities. As the earth was inhabited, it would seem only reasonable to assume that in this respect also it was not exceptional, and that in all probability the other globes, some of them, or many of them, were also fitted for the abode of life, suitably adapted to the conditions which each globe had to offer.

Such was, in outline, the famous argument which was presented half a century ago in support of the conclusion that in all probability certain other planets besides our earth contained organic life. It is worth while to see how far the present state of our knowledge affects the validity of this argument. That it does so, cannot be questioned. I believe, on the whole, the argument has been strengthened by modern research, though it must be admitted that in some respects its efficiency has been impaired.

CORRESPONDENCE BETWEEN THE EARTH AND OTHER PLANETS IN MATERIAL.

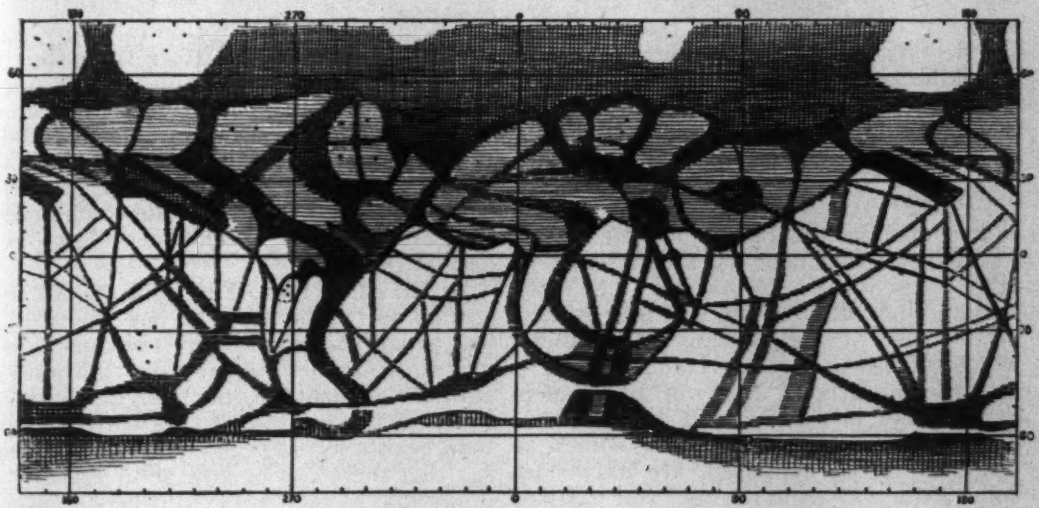
We can, indeed, in these present days, bring forward a striking point of relationship between the earth and the other planets as to which the earlier writers had no information. Had they been aware of it they would certainly have regarded it as greatly strengthening the contention that it was reasonable to presume that the planets must be inhabited. But in those days philosophers had little notion that so astonishing a fact would ever be demonstrated as that the material constituents of the earth were in a great measure identical with the materials constituting the sun. They did not know that the elementary bodies in the earth were substantially the same as the elementary bodies which make up the mass of the great luminary. It is, no doubt, quite true that we are not as yet able to affirm, with any absolute certainty, that the materials from which the planets, such as Venus or Mars, have been built, are actually the same kind of materials as those which make up the earth. Our knowledge, indeed, stops short of this point. We can pronounce on the substantial identity of the solar materials with the terrestrial materials, because in the former case the bodies are so greatly heated that they are in the gaseous state. Spectroscopic methods are therefore available for determining their identity with the glowing vapors of the same substances as we have them on the earth. But the planets are not incandescent. Our spectroscopes may, indeed, to some extent, in-

form us as to the constituents of the planetary atmospheres, but the actual solid portions of the planets cannot be analyzed by any means at our disposal. There is, however, no reason to think that the elements of which the planets are composed differ considerably from the elements of which the earth is made. For most astronomers now admit that the sun and the planets have had a common origin from some primitive nebula, and as we verify this theory by showing that the earth and the sun are substantially of the same constituents, it seems impossible to doubt that the substances which form the earth are largely, if not wholly, the same as the substances out of which the planetary globes have been fashioned. A striking confirmation of this doctrine of material uniformity is presented by certain of the comets which belong to the solar system. It is quite true that such objects have, so far as physical condition goes, no resemblance to planets. It is, however, sufficiently remarkable that comets appear to be composed of materials resembling those of which our earth has been made. For these bodies happen to be, in part at least, of such a gaseous nature that we are enabled to submit them to spectroscopic analysis. They have thus been proved to contain some of the most important terrestrial elements.

It is therefore plain that the ancient argument in support of the notion that some of the planets might be tenanted with life can be considerably reënforced by modern discoveries. For it may now be regarded as practically certain that various elements known on this earth are present in the planetary bodies. We thus see that the components necessary for the physical framework of living creatures may, in all probability, be as abundantly provided upon some of the other planets as they are on the earth.

DISTRIBUTION AMONG THE PLANETS OF ELEMENTS IMPORTANT TO LIFE.

In this connection it is instructive to bear in mind what is known as to the distribution of those particular elements in space which appear to be most characteristically associated with the manifestation of life. No result of spectroscopic research among the heavenly bodies has been more remarkable than that which demonstrates the extraordinary abundance with which the element hydrogen is diffused throughout the universe. It is, of course, one of the commonest elements of the earth, entering, as it does, into the composition of every drop of water. Hydrogen is also a constituent part of a vast number of solid bodies; but the remarkable circumstance for our present purpose is that this same element is found in profusion elsewhere. Surrounding that visual glowing globe of the sun there is an invisible atmosphere, of which hydrogen is one of the most prominent components. A like conclusion is drawn from the spectra of many of the stars. In the case of certain specially white and brilliant gems, of which Sirius and Vega may be taken as the types, the chief spec-



SIGNOR SCHIAPARELLI'S CHART OF MARS, SHOWING THE MARKINGS CALLED BY HIM THE "DOUBLE CANALS."

From "Old and New Astronomy," by Richard A. Proctor. Longmans, Green & Co., publishers, London and New York.

troscopic feature is the extraordinary abundance in which hydrogen is present. Even in the dim and distant nebulæ gaseous hydrogen is the constituent more easily recognized than any other which they may possess. Indeed, it may be affirmed that we do not know any other substance which is so widely diffused as hydrogen. It need hardly be said that this gas is an important constituent in those compound bodies with which life is associated. In that somewhat grewsome exhibition, which shows the actual quantities of the several elements of which an average human body is composed, the bulk of the hydrogen forms one of the most striking items; and indeed in connection with all forms of animal and vegetable life, hydrogen is of primary importance. In the argument from analogy for the existence of life in other worlds, it is significant to note that an element associated in such an emphatic manner with the manifestation of life here should now be shown to be widespread through the universe.

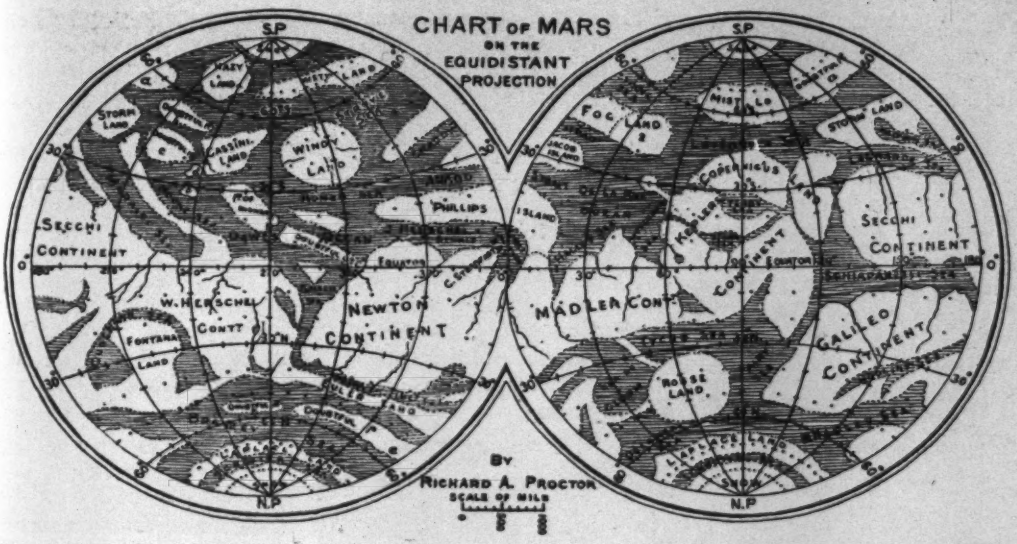
In like manner carbon, which is, of course, an essential factor in organic substances, has been demonstrated to exist in other parts of the solar system. The most striking illustration of this fact is presented in the case of the glowing solar clouds, which there is now good reason to believe are due to carbon. Many of the comets exhibit lines in their spectra characteristic of the same element. If these bodies, as has been often supposed, are drawn by solar attraction from the remotest parts of space, the carbon which they bear testifies that this element is present through a wide extent of the universe. Here, again, modern research has gone far to strengthen the argument as to the possible existence of life elsewhere. It has shown the cosmical nature of that particular element which, if not itself the veritable abode of life, seems to be, at all events, a constituent thereof.

Illustrations of the material identity of the several globes in space might be extended. Have we not been told that a diet absolutely devoid of salt would be fatal? Now the salt, or, at all events, the sodium which forms its characteristic part, is not merely confined to the earth. The famous D line in the solar spectrum tells us that the same element abounds in the sun. Nor is this important element confined to the solar system. We have ample testimony as to the wide diffusion of sodium in stellar depths.

The iron which enters so largely into the framework of things material enters, as is well known, in no inappreciable quantity into the structure of the human body. Is there not some story of the materials for a medal of pure iron having been extracted from the mortal remains of some illustrious individual? At all events, iron in many ways, or in various combinations, is often associated with organic phenomena on the earth. It is, therefore, material to observe that this element, like others which I have mentioned, appears to be very widely distributed through space. It has been proved that many hundreds of lines in the solar spectrum must be attributed to the presence of an abundant iron atmosphere surrounding the heated solar globe. Even such distant stars as Aldebaran or Arcturus have been made to disclose the fact that iron enters into their composition in a very significant manner. If, therefore, there should not be life in the other planets, its nonexistence cannot apparently be attributed to the absence of such suitable materials as life requires to build up its physical abode. So far as our knowledge goes, we feel constrained to admit that such materials are certainly present on other globes besides the earth.

At the same time, it is right to call attention to the fact that we are obliged to use great caution in any conclusion we may draw as to the space distribution of another element of much significance in the vital phenomena of this earth. I allude, of course, to oxygen. I do not, indeed, say that there can be any good reason to doubt that oxygen does really exist in other celestial bodies. In all probability the life-giving gas is just as abundant on many other globes as we find it to be on this one. At the same time, it is proper to remember that a widely extended distribution of oxygen has not been demonstrated in the same emphatic manner as has the existence of the other elements to which I have referred. The dearth of reliable testimony as to the cosmical distribution of oxygen may be attributed not so much to the actual absence of that element from other bodies, as to the unsuitability of the means at our disposal for detecting its presence upon them. I need not go farther into this point than to remark that certain well-marked lines in the solar spectrum had been attributed to oxygen, and they were no doubt correctly so attributed. It was, however, proved by Janssen* that the oxygen which caused these lines, or a great part of them, did not exist in the sun, but that the lines were largely, if

* See McClure's Magazine for February, 1894.—Editor.



From "Old and New Astronomy," by Richard A. Proctor. Longmans, Green & Co., publishers, London and New York.

not wholly, due to the oxygen in the earth's atmosphere. This is not to be taken as a proof that there is no oxygen in the sun. It merely says that its presence there has not been as yet conclusively demonstrated.

This weakness in one link of the chain of evidence does not, however, seriously impair the general conclusion already mentioned, that the substratum of material necessary for life exists on other globes besides the earth. I will only add that the element calcium, which is of essential importance in the shells or the coral of the lower animals, or in the skeletons of the higher, is also one of the elements widely distributed through space.

DIFFERENCES BETWEEN THE PLANETS IN THE MATTER OF TEMPERATURE.

We have thus seen that in one important respect the progress of modern research has strengthened the ancient argument from analogy in support of the belief that there is life on other worlds besides this one. It is right now to mention how, in another way, modern investigation has tended to impair that argument, or, rather, I should say, to limit its application. Various lines of reasoning have rendered it almost certain that in the matter of temperature the several planets present considerable varieties and contrasts. I do not here refer to the temperature of the surface of the planet, which is the result of sunbeams which fall upon it. No doubt there are individual peculiarities of each planet from this cause, the effect of which will be presently referred to. But what I am now discussing is rather the internal heat of the several globes of the system. It seems to be generally true that the larger the dimensions of a planet the greater is the internal heat which it still possesses. Into the reasons of this we need not now enter; suffice it to remark, that the great globe of Jupiter in this respect offers a very marked contrast to the earth. It seems to be highly probable, if, indeed, it be not certain, that Jupiter is at the present time heated to a temperature, at its surface, greatly in ex-

JUPITER, AS SEEN THROUGH A POWERFUL TELESCOPE.

From "Old and New Astronomy," by Richard A. Proctor. Longmans, Green & Co., publishers, London and New York.

cess of the temperature of the surface of the earth. We cannot, indeed, assign an actual value to the temperature of Jupiter, but there seems little doubt that it must be so great as to preclude the possibility of that globe being the abode of any types of life like those which flourish on the earth. It is, no doubt, just conceivable that living beings of some strange and unknown fashion might endure the conditions which Jupiter appears to present; but I do not know anything which would make such a view likely. What we have said about Jupiter may, with certain modifications, apply also to Saturn, and in some degree to Uranus and to Neptune. It seems impossible that any of these great planets are at present abodes of life in any sense which is comprehensible to us.

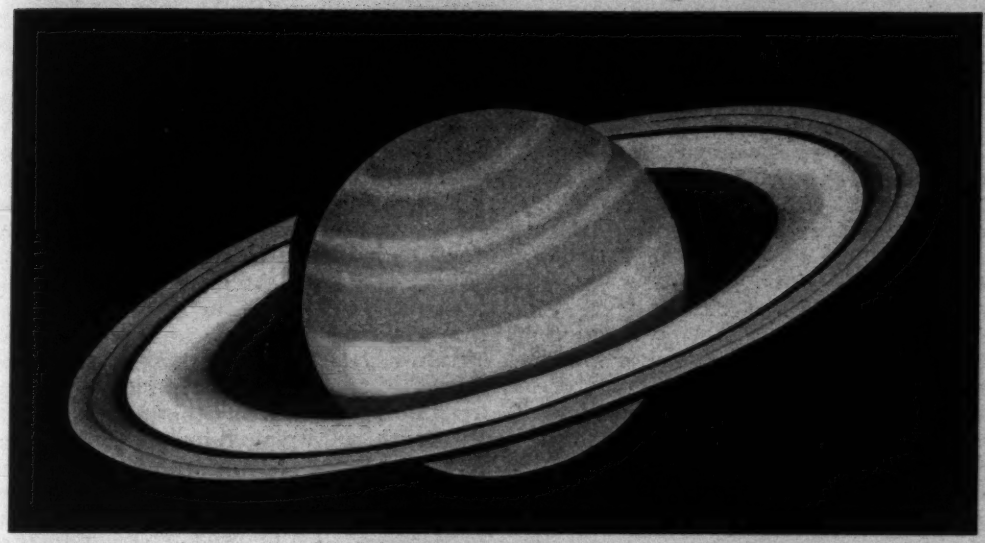
There is reason to think that, so far as internal heat is concerned, the planet Mars, as well as Venus and Mercury, occupies much the same position as the earth. In all four cases the internal heat may be said to be non-existent, in so far as its present effect on any manifestations of life are concerned. The superficial temperatures which these globes present, and the climates that they enjoy, must be attributed primarily to the heat received from the sun; of course, the actual effect on each globe is profoundly modified by its atmosphere, as well as by its distribution of land and water.

The four globes just named are at such varied distances from the sun that the amount of heat which they obtain will differ considerably. Mars can only get a smaller allowance of sunbeams than the earth, while Venus will receive more, and Mercury a good deal more. If we represent the average intensity of sun heat as it arrives at the earth by 100, we shall find that the intensity at Mars is no more than 43. Venus receives a share which may be represented by 191, while Mercury would get as much as 667. At the first glance it might be thought that these figures must necessarily imply vast climatic differences between the different globes. I am certainly not going to deny that this is so. Indeed, it seems to be extremely probable that there may be astonishing differences between the climatic circumstances of the planets. But what I want to insist upon at this moment is that the condition of a planet as to climate is not merely a matter of sunbeams. A very important element consists in the extent of the atmosphere with which that planet is invested. There can be no doubt as to the presence of an atmosphere around Mars, and of another around Venus; but we have no reason to think that these atmospheres, either in density or in composition, resemble that which envelopes our earth. The atmosphere around Mars, indeed, appears to be far less copious than that with which our earth is provided. This much, at least, we conclude from the translucency of the environment which permits us to study the details of Mars with far greater clearness than a Martian astronomer who was trying to survey our globe would be able to obtain through the comparatively dense medium interposed by our skies.

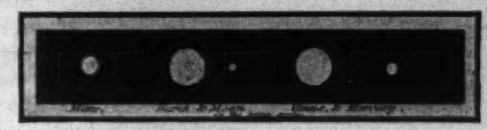
THE EFFECT OF ATMOSPHERE ON THE CLIMATE OF A PLANET.

The character of the atmosphere of a planet will exert a marked effect upon the temperature and the climate of its globe. The abundance of that atmosphere and the proportion in which it contains watery vapor, or possibly other vapors, will all tend to modify the degree in which sun heat is admitted, and the degree in which, when admitted, it is retained. It would be quite possible for two globes enjoying equal shares of sun heat to have, nevertheless, totally unlike temperatures and climates in consequence of atmospheric differences. We know, also, that the distribution of land and water has a marked effect upon climate. It was the contention of Lyell, in his famous book, that the changes of climate in the course of geological time were mainly due to alterations in the relative positions of land and water. The mention of this will, at least, remind us that climate depends upon other elements besides sun heat and atmosphere.

The significance of these considerations in connection with our present subject can hardly be overestimated. A globe may at first sight appear to be too far from the sun to enjoy sufficient light and heat to make life endurable or possible. It may nevertheless happen that, by some suitably contrived atmosphere and some special configuration of land and water, such a globe may possess regions endowed with a mild or even a genial climate. On the other hand, a globe which was placed so close to the great source of light and heat that its inhabitants, if unprotected, would be submitted to an unendurable scorching, may yet be fitted with an atmosphere which shall render it sufficiently adapted for life, notwithstanding its apparently unpromising circumstances.



Saturn and his rings.



Mars. Earth. Moon. Venus. Mercury.

COMPARATIVE SIZES OF THE PLANETS. AS HERE SHOWN, THE PLANETS ARE DRAWN TO ONE SCALE.

From "Old and New Astronomy," by Richard A. Proctor. Longmans, Green & Co., publishers, London and New York.

In illustration of the important climatic effects of an atmosphere, I need do little more than cite the case of the moon. Our satellite is practically at the same distance from the sun as is the earth, and in its case, also, internal heat has no present effect on the temperature of its superficial portions. It would, therefore, seem that so far as sun heat is concerned, the moon must be in much the same condition as the earth. But if we thence deduced the inference that the temperature conditions prevailing on our satellite bore any resemblance to the temperature conditions prevailing on the earth, we should make a great mistake. Observations of the moon's heat show that its surface is exposed to a tremendous range of temperature, extending to hundreds of degrees. It has been demonstrated that the temperature of the moon under the full glare of the sun rises to a point in excess of that of boiling water, while it is equally certain that when the sunbeams are withdrawn the temperature of the moon sinks to a point far below that with which any Arctic explorer has made us acquainted. Here, then, is a globe fed just as we are with sunbeams, and yet undergoing tremendous vicissitudes of climate entirely surpassing any changes endured by the earth. The climatic difference between these two neighboring globes is certainly connected with the fact that the moon has very little atmosphere, even if it be not completely destitute thereof. Our atmosphere acts as a climatic regulator. It reduces the degree in which the intense fervor of the sun affects the earth, and it mitigates the rigor of the cold to which the earth would be exposed when the sunbeams are withdrawn. Such an ameliorating agent is absent from the moon, and hence arise those violent extremes of its climatic condition. We thus see what potent factors the existence and the extent of an atmosphere become in determining the nature of the climate that a planet is to have. We do not know enough regarding the atmospheres of Mars, Venus, and Mercury to be able to draw any certain conclusions with regard to their climates. But this much we may at least affirm, that it seems quite possible for the different influences we have named to go a long way toward neutralizing the contrasts which the climates of these globes would otherwise present in consequence of the different supplies of sunbeams that they receive at their actual solar distances. So far as mere climate is concerned, it seems quite possible that appropriate atmospheres and land distributions might be adjusted on the earth and Mars, Mercury, and Venus, in such a manner that certain organic types might be common to all the four globes.

Of course the presence or absence of water on a potential world must be a very material element in deciding as to whether

life can exist thereon. The absence of water from the moon, for instance, must be at once admitted to be incompatible with the existence of life on that globe, in so far, at least, as the word life conveys to us any intelligible meaning. But though there is no water to be discerned at present on our satellite, yet it would seem highly probable that other globes may not be similarly destitute. One of the most striking features which Mars presents when that planet is placed in a favorable opposition, consists in his wonderful Arctic region of white material. This seems to grow as the winter advances on Mars, and decreases when summer reigns on that hemisphere of the planet which is exposed to us. Now we should certainly be going beyond the actual extent of our knowledge were we to affirm that what we see on Mars is certainly ice or snow, similar to that which we find in our own Arctic regions. It seems, however, hardly possible for us to frame any other supposition which could be reconciled with the facts. Indeed, the whole appearance of the planet makes it highly probable that water is quite as important a factor in the constitution of that globe as it is in our own.

Venus is so circumstanced in regard to the position which it has relatively to the earth that we are not able to examine it with the same degree of success as that which attends the study of our neighboring planet on the other side. It would appear, however, from the observations of Trouvelot, that the poles of this planet are also characterized by caps of white material, which remind us of the polar condition of our own earth, as well as of Mars. We do not see Mercury sufficiently well to form any conclusion as to whether it may possess similar features. The clouds of Jupiter, doubtless, also contain water, even if they are not entirely composed thereof; though, for the reasons already assigned, it seems quite unlikely that there can be any life on that globe.

RELATION BETWEEN THE SIZE OF A PLANET AND THE POSSIBILITY OF LIFE.

In the absence of any definite knowledge as to the composition of the atmospheres by which the planets are surrounded, or as to the climates which they enjoy, it would certainly be idle for us to speculate as to how far they might possibly be tenanted by creatures resembling those found on this earth. It would also be impossible for us to form any conception as to the biological characteristics of creatures which would be adapted for residence on the several planets. There is, however, one merely mechanical matter which may be usefully mentioned, inasmuch as it depends on considerations which admit of demonstration.

We are able to weigh the several planets. Indeed, the problem is a comparatively easy one when applied to those bodies which are attended by satellites, inasmuch as the movements of the satellites contain indications of the weights of their primaries. But even when a planet has no satellites, it is still possible for an astronomer to find the weight of a body by the effect which its attraction produces on other planets. But the weight of a planet must stand in important relation to the framework of the organisms which are adapted to dwell upon it. Let me try to make this clear by a few illustrations.

Suppose that a planet, while still retaining the same size, was to be greatly increased as to its mass. The consequences would be felt very seriously by all organized creatures. The most immediate effect would be to increase the apparent weight of everything. If, for instance, a globe the same size as the earth possessed double the mass of the earth, the effect would be that the weight of each animal on the heavier globe would be double that on the earth. A horse placed on the heavy globe would be subjected to a load which would oppress him as greatly as if, while standing on our earth as at present constituted, he bore a weight of lead on his back which amounted to as many pounds as the animal itself. Each leg of an elephant would be called upon to sustain just double the not inconsiderable thrust which at present such a pillar has to bear. A bird which soars here with ease and grace, would find that the difficulty of such movements was greatly increased, even if they were not wholly impossible, on a globe of equal size to the earth, but double weight. It would seem as if flying animals must be the denizens of light globes rather than of heavy ones.

It is also easy to show that in general, other things being equal, the size of an animal should tend to vary in an inverse direction to that of the mass of the globe on which it dwells. At first it might be supposed that big animals might be most appropriately located on big worlds, and small animals on small worlds. No doubt there are so many circumstances to be considered, of which we are in almost complete ignorance, that any statements of this kind must be received with consider-

able caution. We may, however, assert with some confidence that, so far as our knowledge goes, the truth lies the other way. It is the small animals which are adapted for the larger worlds; it is the big animals which are adapted for the smaller worlds. The proof of this involves an interesting point.

LARGE WORLDS FOR SMALL ANIMALS, SMALL WORLDS FOR LARGE ANIMALS.

The argument is as follows: Suppose that an animal on this earth, as it is at present, were to have every dimension doubled. To take a particular instance, conceive the existence of a giant horse which was twice as high and twice as long, in every feature and detail, as an ordinary horse. It is obvious that, as all three dimensions of the animal are doubled, its volume, and therefore its weight, would be increased eightfold, and the weight that would have to be transmitted down each of the four legs would be increased eightfold. Each leg of the giant horse would, therefore, have to possess eight times the weight-sustaining power that would suffice for the leg of the ordinary horse. As the proportions are supposed to have been observed throughout, the leg of the giant horse would be, of course, considerably stronger than that of the ordinary horse, but it would not be so much stronger as to enable it to accomplish the task it would be called on to perform. The section of the leg of the giant horse would, no doubt, be double in diameter that of the normal individual. This would imply that the area of the section was increased fourfold. But we have seen that the weight transmitted was increased eightfold. Study the effect of this on the horse's hoof in contact with the ground. In the giant horse the area of the surface of contact would be four times as great as in the normal horse. As, however, the weight transmitted is eight times as great, it follows that this wear and tear on each square inch of the foot, and this is the proper way to estimate it, would be just twice as destructive in the giant horse as it would be in the ordinary animal. If, then, as we may well suppose, the foot of the latter is just adapted for the work which it has to do, then the foot of the giant horse would be incapable of withstanding the wear and tear to which it would be subjected. It follows that an effective animal, on the scale we have suggested, would be an impossibility on our earth; at all events, when the materials from which it was made were the same as those out of which our animals are fashioned.

Suppose this giant horse, instead of being left on this earth, were transferred to another globe, which only exerted half the gravitating effect experienced on the earth's surface, then the effort the animal would have to make in supporting its own weight would only be half that which it has to put forth here. The consequence is that the framework of the giant horse would, in such a case, have to support a weight which was not more than four times that of an ordinary horse standing on the earth. As the area of the bases of support in the large animal was fourfold that in the normal horse, it would follow that, area for area, there would be a pressure transmitted through the foot of the giant horse on the less ponderous globe precisely equal to that of the normal horse on the earth. The materials of which the big horse is built ought, therefore, to be able to sustain him effectively when he was placed on the light globe. It therefore appears that, so far as gravitation is concerned, the big horse would be better adapted for the light globe, and the small horse for the heavy one. More generally we may assert that, regarding only the point of view at present before us, the limbs of smaller animals would be better adapted for vigorous movement on great planets than would those of large creatures.

It is, however, proper to bear in mind the point to which attention was, so far as I know, first called by Mr. Herbert Spencer. He has shown that there are excellent biological reasons, quite independent of those mechanical considerations to which I have referred, why it would be impossible for an efficient animal to be constructed by simply doubling every dimension of an existing animal. The support of the creature's life has to be effected by the absorption of nourishment through various surfaces in the body. But if all the dimensions are doubled, the bodily volume, as we have already mentioned, is increased eightfold, and therefore its sustenance would, generally speaking, require eight times the supply that sufficed for the original animal. On the other hand, supposing the same scale to be observed throughout the animal's body, the available surface area for absorption of nourishment has only increased fourfold, and therefore each square inch would have to do double duty in the large animal. If, however, the surfaces are at present at full work, it would seem impossible that they should efficiently

undertake double the work they now get through. On this account, therefore, a live animal would seem impossible on a simple specification of dimensions twice those of any existing animal. Great structural modifications of pattern would have to accompany the enlargement of bulk. This, be it observed, is wholly independent of all questions as to gravitation.

No reasonable person will, I think, doubt that the tendency of modern research has been in favor of the supposition that there may be life on some of the other globes. But the character of each organism has to be fitted so exactly to its environment that it seems in the highest degree unlikely that any organism we know here could live on any other globe elsewhere. We cannot conjecture what the organism must be which would be adapted for a residence in Venus or Mars, nor does any line of research at present known to us hold out the hope of more definite knowledge.

ON THE ENGINE OF A LONDON AND PARIS EXPRESS.

By Cy Warman.

UNDREDS of hansom cabs, countless carriages, and myriads of omnibuses came out of the fog and filled the ample grounds in front of Victoria station. A solid stream of men, women, and children was pouring in at the gates to the platforms where the trains stand. Long lines of people were waiting in front of the windows in the booking-office. Trunks, bags, and boxes fairly rained into the luggage-room, but the porters (short, stout fellows) picked them up and bore them away as red ants run away with crumbs at a picnic.

To the train titled people came in carriages, behind splendid horses, with coachmen in high hats and footmen in yellow trousers. American millionnaires came also, in cabs, coaches, and tally-hos, and mingled with the plain English nobility.

You can tell the American women by their smart dresses, and the English by their heavy boots, red cheeks, and heaps of hair. You can tell the London swell from the New Yorker, for there is something the matter with one of his eyes. And you can pick out the duke and the lord, for they are, in most cases, plain and modest men. There is a noticeable absence of poor people, for the train is not going to the hop-fields of Kent, but to Paris and the Riviera. Mr. Thorne, the American representative of the London, Chatham and Dover Railway, in a shining silk hat, a snow-white cravat, and blood-red *boutonnière*, and Mr. Green, the station-master, are busy assigning small parties of Americans to compartments, and larger parties to saloons. The Englishman travelling in his native land makes little trouble for any one. He usually has his luggage aboard, and his porter dismissed with a scowl and a threepence, while the foreigner, with a smile and a shilling, awaits his turn. All the Englishman asks is to be let alone, and surely that is not too much. They tell here of a man entering a compartment with an Englishman and remarking that it was a nice day.

"Dash it!" shouted the other, "aren't you getting your share of it?"

The faded carriages that stretch away in a long line towards the locomotive look singularly small to those who are accustomed to seeing the heavy trains of America.

AN ENGLISH LOCOMOTIVE TO THE EYE OF AN AMERICAN DRIVER.

And now we come to the locomotive. The stoker touched his cap when I stepped aboard, and I noticed that he did this every time he addressed me. If I asked a simple question he invariably touched his cap before he answered.

The absence of a pilot, or "cow-catcher," as it is sometimes called, makes the English locomotive look awkward and unfinished to an American. There are no cylinders, cross-heads, or main rods in sight, and at first glance she reminds one of a well-made stationary engine. Even her beautiful high wheels are half covered with steel. Like a well-dressed Englishman,

VICTORIA STATION, LONDON.

the English locomotive looks best from her knees up.

Above her running-board she is scrupulously clean, bright, and interesting. But even here she has a vacant look. There is but one steam dome, and no sand-box or bell; she looks as though she had been driven under a low bridge, had had her back swept bare, and then had had nothing rebuilt but one dome and the stack.

In the cab, where ought to be comfortable seats for the driver and stoker, there are high boxes that come nearly to the window-sills. No matter how long he remains on duty, the driver must stand up; nor has the stoker, who in descending a long bank might get a moment's rest, any place to sit, but must stand the whole way on his weary feet. This is simply disgraceful. The precious lives of thousands of people are placed in the hands of the engine driver, and yet no thought is given to his comfort. I read, with considerable amusement, an article in an English journal, urging the board of trade to provide medals as a reward to engine drivers "for duty ably done." I would suggest better wages, and seats in the cabs. Medals are all right as a mark, but even titles are no good when we are dead. Think of a man spending years in learning a trade, and then doubling the road between London and Dover, one hundred and sixty miles, for seven shillings—one dollar and seventy-five cents, or ninety miles for a dollar—just three dollars less than an engineer gets for covering the same distance on a mountain road in the United States! The risk is about the same, for the English driver runs four times as fast as the mountaineer.

ON THE LOCOMOTIVE OF AN ENGLISH EXPRESS.

Engine 17, designed by William Kirtley, locomotive superintendent of the London, Chatham and Dover Railway, was attached to the Paris train, and when we got a signal to go she started the eleven light carriages, all filled with people, as easily as a good horse starts a hansom. The fog that hung over the city in the early morning had all blown away, and the sun shone brightly on the glistening steel. Our engine was nearly new, and I saw, before we had gone a mile, that she was a good, easy rider. She had not the exaggerated (eight-foot) English wheels, and was all the better for it. She was smart, and had her train going so that the rear car passed out of the station shed at fifteen miles an hour. The furnace-door was ingeniously arranged, so that by pulling a lever the door parted in the middle. The

firebox was not more than four feet long, but long enough to make plenty of steam, and with about twenty per cent. less coal than an American engine of the same size would consume. There was nothing to look out for but the signals, as the roadways in England are all walled in, and the driver dashed right away to the sea. The track is not straight, and I soon found it necessary to hang on to the cab as she swung round the corners.

Out through the ragged edge of London, over the Thames, and down the rail, our steel steed whirled us at a rapid rate. The English driver does not run "with his hand on the throttle and his eye on the road," as we are wont to picture a locomotive engineer, for the throttle is at the top of the boiler-head, and must be sought out by the driver before he can shut off steam, no matter how great the emergency. It does not require a practised railroader to understand that if the driver had his hand on the lever, he could shut off without taking his eye from the rail, and in less than a quarter of a second.

Five miles out we stopped at a small station and picked up four more carriages. Our train was equipped with the matchless Westinghouse air-brakes, and they do work delightfully on these light cars. So perfectly were they adjusted, and so smoothly did the quiet old seven-shilling-a-day driver apply them, that the train came to a dead stop with as little jolt as would attend the stopping of a baby-carriage.

Already I had learned to like our locomotive; but when we got a signal to go, and the driver gave her steam, the fifteen carriages refused to start. Here I witnessed, for the second time in my life, the working of the slowest, clumsiest piece of machinery in use to-day in any civilized country—the "reversing-wheel." I had seen it once before, when the London and Northwestern's prize engine was leaving Chicago. When the locomotive fails to start her train, it is always necessary to reverse her to get what there is of slack between the cars. In this way the engine starts a car at a time, so that by the time the last car is started the locomotive has made a quarter of a turn or more, and the front part of the train is in motion. With a quick-working reverse lever this is accomplished easily; but with a wheel that must be given from seven to eleven revolutions to reverse the machinery, the process is painfully slow, without the saving grace of being sure. As the wheel revolves, the locomotive creeps forward, stealing the slack from car after car, so that by the time the machinery is in the forward motion the slack is gone, and you are just where you were before you began to reverse. There was a serious collision on the Great Northern not long ago. A double-head express train dashed into a goods train that was being shunted; and if the locomotives had "wheels," the wonder is that more people were not killed.

THE ENGLISH WOMAN WITH HER HEAPS OF HAIR.

SEVENTY-FIVE MILES WITHOUT A STOP.

From Herne Hill, where we got the last four carriages, it is seventy-five miles to Dover, and we were to make the run without a stop. Just about the time our smart steed got them going, she dashed into a tunnel half a mile long. The great drivers hammering the rails, and the rattle of the carriages, made a deafening roar, and, to add to the torture, the driver pulled the whistle. The English locomotive whistle is the shrillest, sharpest, most ear-splitting instrument of torture ever heard. It is about as musical as a Chinese fiddle accompanied by a lawn-mower.

How bright the sun looked—for I had been in London four weeks—when we leaped out at the other end of the tunnel. Although it was now the middle of October, the sides of the cuts were beautifully carpeted with green turf. The whole right of way was perfectly clean, and here and there were neat brick and stone stations between the up and down tracks.

As the smoke of London began to grow

dim in the distance, a beautiful panorama of fields and farms opened up before us. As far as the eye could reach, on either side, were rolling meadows and brown fields dotted with thatch-roofed stacks. If the speed slackened as we ascended a long "bank," these rural pictures claimed my attention, and made me forget for the moment that we were at the front of the Paris express. But when we had reached the summit, and the world began to slip away beneath us till the keen air cut our faces, we were made to realize that we were not losing any time. Now we were rolling along the top of a high hill, from whose flat summit we looked down the chimney-pots in the village houses; and now dashing into a deep cut, where flocks of frightened quail rose up and beat the banks, or, caught by the eddying wind, were dashed against the sides of the flying train, as a man standing near the track and grown dizzy throws himself beneath the wheels.

A sharp curve throws our train out on the brow of a gentle hill. Below, through a green valley, winds a lazy-looking river —the Medway. This is the old town of Rochester, the land of Dickens, and beyond the river stands the old Norman castle.

And this is what Mr. Jingle said when he saw it :

"A fine old place—a glorious pile—frowning walls—tottering arches—dark nooks—crumbling staircases—old cathedral, too—earthy smell—pilgrims' feet worn away the old steps—little Saxon doors—confessionals, like money-takers' boxes at theatres—queer customers those monks—Popes, and Lord Treasurers, and all sorts of old fellows with great red faces and broken noses turning up every day — buff jerkins, too — match-locks—sarcophagus—fine place—old legends—strange stories."

The red vines that cling to the shoulders of this rare old ruin glow warmly in the autumn sun. Only a flash, and we turn another corner, and the old castle is lost in the dreary blond brick houses of Rochester. Now and then, as the train whirls through the city, the towering spires of the cathedral are seen.

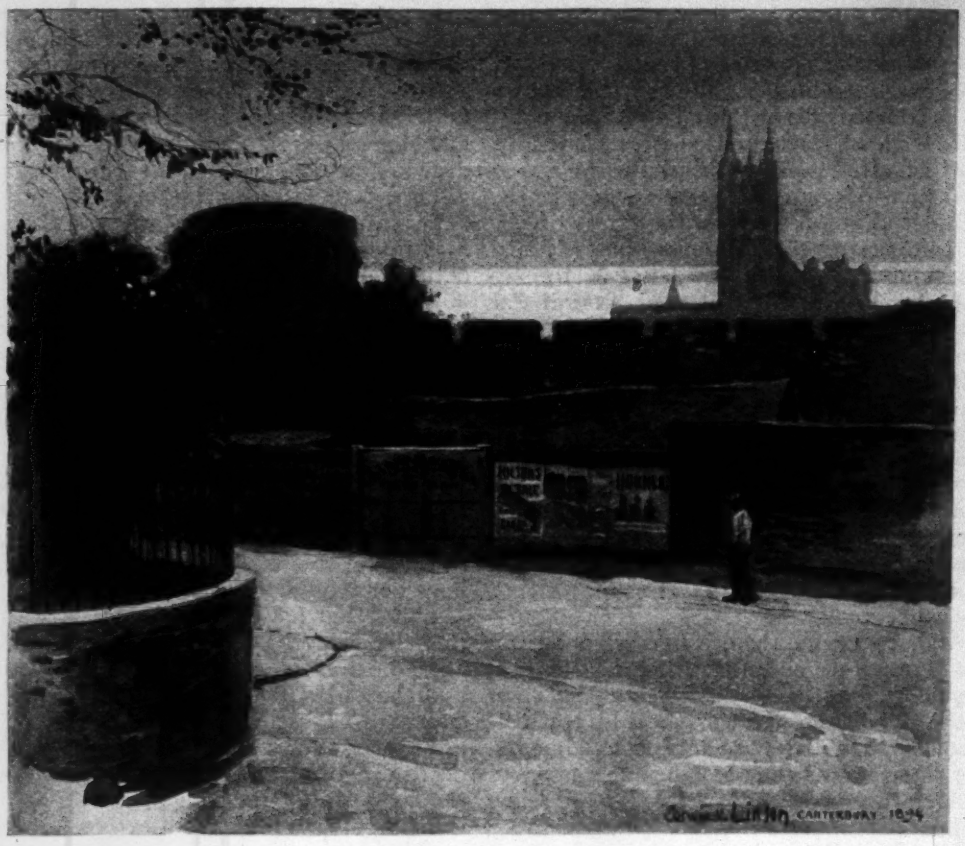
A SMOOTH, SWIFT DASH DOWN INTO DOVER.

Away, away, the engine flies, and the dull town is left for the sunny fields. We are now entering the great hop-fields of Kent, one of the fairest counties in all England, I am told. Ours is not the only locomotive abroad, for almost every moment we can see another train flying across the country, always crossing either above or below our track. Out in the fields are other engines, great awkward machines, pulling ploughs, and sometimes drawing trains of wagons through the village streets. At the end of a long curve, around which we swing at a mile a minute, rise the great spires of the cathedral of Canterbury.

Here, too, are clinging vines and crumbling walls—old legends and strange stories. Here are stone steps worn away by pilgrims' feet—the steps that lead from the musty crypt to Becket's shrine. Here sleep the murdered bishop and the king.

But there is no time to dream, for we are now whirling away towards the water-edge. At last the driver shuts off steam, the stoker washes the deck with a water-hose connected with the injector pipe, and remarks that his work is done. His labor, like his salary, is light ; for although we have been on the road nearly two hours, he has not burned half a ton of coal. The trains, of course, are light, and that makes light work for the enginemen. It is all down hill now, and we fairly fall through the tunnels and deep cuts, till all at once the "silver streak," as they call it here,

AN ENGLISH SALOON COACH.



CANTERBURY AND ITS CATHEDRAL SPIRES.

is seen, and this is the end of the first heat.

Many things bear the name of "the widow of Windsor," and I was not surprised to find the "Victoria" rocking restlessly by the dock at Dover.

It is surprising to an American to see how quickly fourteen English carriages can be emptied. I should say that in two minutes from the time our train stopped we were all aboard. In eight minutes the baggage was transferred from the train to the boat, and in ten minutes we were leaving the dock.

The Channel has not the reputation of being particularly pacific, and this was one of her busy days. In ten minutes after the whistle sounded, the "Victoria" was capering out towards the coast of France, just as an untamed broncho capers with a cowboy across a corral. To the disgrace of the London, Chatham and Dover Railway Company, she is a side-wheeler. Except the reversing-wheel and the seatless cab of the 17, this is the only disgraceful thing I found on the Dover route.

NOBLEMAN AND COMMONER IN AN EQUALITY OF DISTRESS.

There are on the "Victoria" a number of staterooms, a splendid lounging saloon, a ladies' cabin, and a "public house." Better than all these things, there are the ever-ready stewards, who watch the women, and just at the moment when life loses its glitter, and the unhappy tourist ceases to care, come quietly, wearing the while a look of deepest sympathy, leave a small, regretting basin by her chair, and move away.

It is really pitiful to watch a lady of lofty estate cross the Channel. Sometimes, you know, the staterooms won't go round, for many people travel between London and Paris; and then even a titled lady may be forced to remain on deck with the humbler passengers, and we are apt to see her gradually relinquish her dignity, *déjeuner*, and things, and sag down into her chair like a sack of hops in the front end of a dray.

I made a short study of a lord going over. He was not what you would call

A WAY STATION NEAR PARIS.

distinguished-looking, in his large, soft hat and raincoat, but he looked respectable, at least. We had not gone very far when he began to turn his head from side to side as if he had lost something. Then he would close his eye for a spell and try to think. He was the homeliest man I have seen in Europe; and he was constantly doing "stunts" with his good eye in order to keep the glass in the other. I don't know whether he died or not, for a sort of malarial feeling came over me, and I lost interest in everything, except the French coast.

In spite of the rough sea we made the run from Dover to Calais, twenty-five miles, in a few minutes over an hour.

"*Chemin de fer du nord*" is the first French sign seen by the voyager from England. It is the name of the railway, or "road of iron," as the French put it, over which we are to pass to Paris.

The captain of the "Victoria" had given me a letter which contained a pass—a "*Permis de monter sur les machines*," and this pass went on to say that I would be "permitted to circulate or promenade on the machine drawing the quick express during one voyage between Calais and Paris." This little surprise had been arranged for me through the kindness of Mr. Morgan, secretary of the London, Chatham and Dover, an able manager and an agreeable gentleman.

At Calais the government inspectors toy with the hand-baggage, spill the smelling-salts and face-powder, and mix things up generally. Your heavy luggage has been "pasted through" to Paris and gives you no trouble.

Those who had recovered sufficiently from the uneasiness of the Channel went into the buffet and had breakfast. In London it is always morning till you have dined at night; and in France all that you eat, no matter how often, is breakfast until dinner, which is seldom before seven P. M.

CIRCULATING ON THE "MACHINE" OF THE PARIS "QUICK EXPRESS."

Sliding back into my engine clothes, I went forward to where the locomotive stood steaming and sizzling, ready to be off.

Just as I reached her the driver began to whirl the reversing-wheel, for he had heard the signal-bell, and the long train moved away. I showed my pass. The driver smiled and waved me out of the fireman's way. The cab was the same wretched, comfortless cavity that I had seen on the Dover, only not so clean. The tank, or tender, where the coal is carried, was filled with slack and dust. As fast as he shovelled into the heap where the slack was dry, the fireman turned the hose on it until it was a puddle of mush, and, to my surprise, he shovelled this slop into the firebox and kept the locomotive howling hot. It would be impossible, of course, to fire an American express locomotive with such fuel, for here the engines are worked so much harder to draw the heavy trains. When we had whipped around a few curves, I saw that the best place for me was behind the driver, and I stepped over to his side.

There existed between the engine, the enginemen, and me, a feeling of estrangement that was almost melancholy.

I missed the sleepy panting of the air-pump and the click of the latch on the reverse-lever. There was no bell to relieve the monotony of the rasping, phthisicky whistle. I wondered if we could ever understand each other—if she would respond to my touch, for the driver talked to her in a strange tongue.

Aye, and these twin threads of steel stretch away through a foreign land; but it's all God's world. The same sun lights up the fields with that matchless brilliancy so missed by Americans on the English isle.

The trains here, as in Great Britain, are light, and it requires only a few moments to get them going. The country is rough, or, rather, rolling, and there are plenty of curves, heavy hills, and deep cuts, whose

scooping sides are paved with the native stone, cut smooth as the walls of a house. The track is good and the riding easy. The country grows more beautiful as the town of Calais is left farther and farther behind, but all so strangely new. The fields are small and well-cultivated; and here and there on the terraced downs women trudge by the side of ox-teams that are hauling heavy harrows by their heads, having sticks lashed to their horns.

The line runs along the coast, and the happy peasants, toiling in fields that tip gently to the west, watch the sunset in the sea. Some of the little vales that face the water are strangely beautiful, lit by the mellow light of the dying day. And now my new, strange horse of iron quickens pace, for we are descending a long hill, and the fields wheel and whirl by so rapidly that I can scarcely count the horses in the long tandems that draw the high-wheeled carts.

The enginemen wore no gloves, and handled the door-chain and hot levers as though they were wood. The driver held a piece of burning waste in his hand to furnish fire for his cigarettes. I did not reproach him nor blame him for smoking cigarettes—it was the "wheel," no doubt, that drove him to it.

If the cabs had seats, running a locomotive would be much easier in Europe than in America. The ways are all walled or fenced in, and there is no necessity for the constant straining of the eyes and nerves from which American drivers suffer so much.

WOMEN SWITCH-TENDERS.—NO HEADLIGHTS.

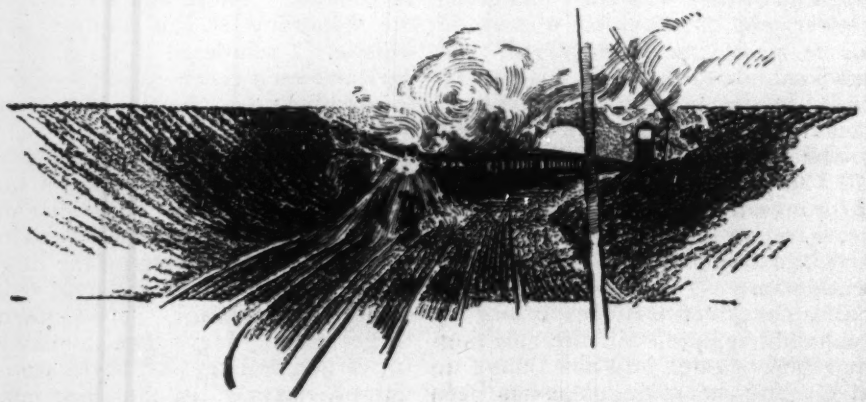
The first stop is at Amiens, eight miles out. There I saw what I had never seen before—women working the switches in a signal tower. There were two of them, and they appeared to have the station quite to themselves. I make no doubt that they find their work very agreeable and interesting; that they are faithful, that their homes are happy, and that they consider themselves very superior, and refuse to exchange calls with their sister the "bull-whacker" over in the field.

At Amiens we met night on her way to the west, and I gave up the engine for the more comfortable carriage. The compartment was very like the one assigned our party on the London, Chatham and Dover, except that it was a trifle wider, and done in tan instead of blue.

Here, as in England, the stations are ample, with all the tracks under cover. The train stops but five minutes, but the European carriages soon discharge their passengers—the first class into the *buffet*, the second, as a rule, into the *buvette*. A brass-hulled yard-engine was bustling about, uttering shrill shrieks in the great sheds. The yardmen worked without lamps, and wore horns over their shoulders, through which they "conched" signals to the engineer. The locomotives have no headlights in Europe, such as are used in the States, but there was a hand-lamp or lightning-bug chained fast on the pilot of the "shunter" at Amiens.

After trembling away in the twilight for an hour, and an hour into the night, the street lamps of Paris began to thicken by the way, and in a few minutes we stopped in the great station of the Nord and were in Paris—the woman's heaven and the horse's hell.

It would be unjust and ungrateful on my part to sign this without acknowledging that the treatment accorded me by the railway officials I met in England and France was most cordial, and that I have been greatly assisted by the embassies at Paris and London—especially at London.



THE ROLL-CALL OF THE REEF.

A STORY OF THE SEA.

By "Q,"

Author of "Dead Man's Rock," etc.

"YES, sir," said my host the fisherman, reaching down the relics from their hook in the wall over the chimney-piece; "they've hung here all my time, and most of my father's. The women won't touch 'em, they're afraid of the story. So here they'll dangle, and gather dust and smoke, till another tenant comes and tosses 'em out o' doors for rubbish. Whew! 'tis coarse weather, surely."

He went to the door, opened it, and stood studying the gale that beat upon his cottage-front, straight from the Manacle Reef. The rain drove past him into the kitchen like threads of gold silk slanted in the shine of the wreck-wood fire. Meanwhile, by the same firelight, I examined the relics on my knee. The metal of each was tarnished out of all recognition. But the trumpet was evidently an old cavalry trumpet, and the threads of its parti-colored sling, though frayed and dusty, still hung together. Around the side-drum, beneath its cracked brown varnish, I could hardly trace a royal coat-of-arms and a legend running *Per Mare, Per Terram*—the motto of the Marines. Its parchment, though black and smelling pungently of wood-smoke, was limp and mildewed; and I began to tighten up the straps—under which the drumsticks had been loosely thrust—with the idle purpose of trying if some music might be got out of the old drum yet.

But as I turned it on my knee, I found the drum attached to the trumpet-sling by a curious barrel-shaped padlock, and paused to examine this. The body of the lock was composed of half-a-dozen brass rings, set accurately edge to edge; and, rubbing the brass with my thumb, I saw that each of the six had a series of letters engraved around it.

I knew the trick of it, I thought. Here was one of those word padlocks, once so common; only to be opened by getting the rings to spell a certain word, which the dealer confides to you. I was mistaken.

My host shut and barred the door, and came back to the hearth.

"'Twas just such a wind—east by south—that brought in what you've got between your hands. Back in the year 'nine, it was; my father has told me the tale a score o' times. You're twisting round the rings, I see. But you'll never guess the word. Parson Kendall, he made the word, and locked down a couple o' ghosts in their graves with it; and when his time came, he went to his own grave and took the word with him."

"Whose ghosts, Matthew?"

"You want the story, I see, sir. My father could tell it better than I can. He was a young man in the year 'nine, unmarried at the time, and living in this very cottage, just as I be. That's how he came to get mixed up with the tale."

He took a chair, lit a short pipe, and went on, with his eyes fixed on the dancing violet flames.

"Yes, he'd ha' been about thirty year old in January, eighteen 'nine. The storm got up in the night o' the twenty-first o' that month. My father was dressed and out long before daylight; he never was one to bide in bed, let be that the gale by this time was pretty near lifting the thatch over his head. Besides which, he'd fenced a small 'taty-patch that winter, down by Lowland Point, and he wanted to see if it stood the night's work. He took the path across Gunner's Meadow—where they buried most of the bodies afterwards. The wind was right in his teeth at the time, and once on the way (he's told me this often) a great strip of ore-weed came flying through the darkness and fetched him a slap on the cheek like a cold hand. But he made shift pretty well till he got to Lowland, and then had to drop upon hands and knees and crawl, digging his fingers every now and then into the shingle to hold on, for he declared to me that the stones, some of them as big as a man's head, kept rolling and driving past till it

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seemed the whole foreshore was moving westward under him. The fence was gone, of course; not a stick left to show where it stood, so that, when first he came to the place, he thought he must have missed his bearings. My father, sir, was a very religious man; and if he reckoned the end of the world was at hand—there in the great wind and night, among the moving stones—you may believe he was certain of it when he heard a gun fired, and, with the same, saw a flame shoot up out of the darkness to windward, making a sudden fierce light in all the place about. All he could find to think or say was, 'The Second Coming—The Second Coming! The Bridegroom cometh, and the wicked He will toss like a ball into a far land!' and being already upon his knees, he just bowed his head and bided, saying this over and over.

"But by'm-by, between two squalls, he made bold to lift his head and look, and then by the light—a bluish color 'twas—he saw all the coast clear away to Manacle Point, and off the Manacles, in the thick of the weather, a sloop-of-war with top-gallants housed, driving stern foremost towards the reef. It was she, of course, that was burning the flare. My father could see the white streak and the ports of her quite plain as she rose to it, a little outside the breakers, and he guessed easy enough that her captain had just managed to wear ship, and was trying to force her nose to the sea with the help of her small bower anchor, and the scrap or two of canvas that hadn't yet been blown out of her. But while he looked, she fell off, giving her broadside to it foot by foot, and drifting back on the breakers around Carn dû and the Varses. The rocks lie so thick thereabouts, that 'twas a toss-up which she struck first; at any rate, my father couldn't tell at the time, for just then the flare died down and went out.

"Well, sir, he turned then in the dark and started back for Coverack to cry the dismal tidings—though well knowing ship and crew to be past any hope; and as he turned, the wind lifted him and tossed him forward 'like a ball,' as he'd been saying, and homeward along the foreshore. As you know, 'tis ugly work, even by daylight, picking your way among the stones there, and my father was prettily knocked about at first in the dark. But by this 'twas nearer seven than six o'clock, and the day spreading. By the time he reached North Corner, a man could see to read print; hows'ever he looked neither out to sea nor towards Coverack, but headed straight for the first cottage—the same that stands above North Corner to-day. A man named Billy Ede lived there then, and when my father burst into the kitchen bawling, 'Wreck! wreck!' he saw Billy Ede's wife standing there in her clogs, with a shawl over her head, and her clothes wringing wet.

"'Save the chap!' says Billy Ede's wife, Ann. 'What d'ee mean by crying stale fish at that rate?'

"'But 'tis a wreck, I tell 'ee. I've a-zeed 'n!'

"'Why, so 'tis,' says she, 'and I've a-zeed 'n, too; and so has everyone with an eye in his head.'

"And with that she pointed straight over my father's shoulder, and he turned; and there, close under Dolor Point, at the end of Coverack town, he saw another wreck washing, and the point black with people, like emmets, running to and fro in the morning light. While he stood staring at her, he heard a trumpet sounded on board, the notes coming in little jerks, like a bird rising against the wind; but faintly, of course, because of the distance and the gale blowing—though this had dropped a little.

"'She's a transport,' said Billy Ede's wife, Ann, 'and full of horse soldiers, fine long men. When she struck they must ha' pitched the hosses over first to lighten the ship, for a score of dead hosses had washed in afore I left, half-an-hour back. An' three or four soldiers, too—fine long corpses in white breeches and jackets of blue and gold. I held the lantern to one. Such a straight young man.'

"My father asked her about the trumpeting.

"'That's the queerest bit of all. She was burnin' a light when me an' my man joined the crowd down there. All her masts had gone; whether they carried away, or were cut away to ease her, I don't rightly know. Anyway, there she lay 'pon the rocks with her decks bare. Her keelson was broke under her and her bottom stove, and she had just settled down on her sagged timbers like a setting hen, just the leastest list to starboard; but a man could stand there easy. They had rigged up ropes across her, from bulwark to bulwark, an' beside these the men were mustered, holding on like grim death whenever the sea made a clean breach over them, an' standing up like heroes as soon as it passed. The captain an' the officers were clinging to the rail of the quarter-deck, all in their brave uniforms, waiting

for the end as if 'twas King George they expected. There was no way to help, for she lay right beyond cast of line, though our folk tried it fifty times—and beside them clung a trumpeter, a whacking big man, an' between the heavy seas he would lift his trumpet with one hand, and blow a call; and every time he blew, the men gave a cheer. There—hark 'ee now—there he goes agen! But you won't hear no cheering any more, for few are left to cheer, and their voices weak. Bitter cold the wind is, and I reckon it numbs their grip o' the ropes, for they were dropping off fast with every sea when my man sent me home to get his breakfast. Another wreck, you say? Well, there's no hope for the poor dears, if 'tis the Manacles. You'd better run down and help yonder; though 'tis little help any man can give. Not one came in alive while I was there. The tide's flowing, and she won't hold together another hour, they say.'

"Well, sure enough, the end was coming fast when my father got down to the point. Six men had been cast up alive, or just breathing—a seaman and five troopers. The seaman was the only one that had breath to speak; and while they were carrying him into the town, the word went round that the ship's name was the 'Despatch,' transport, homeward bound from Corunna, with a detachment of the Seventh Hussars, that had been fighting out there with Sir John Moore. The seas had rolled her further over by this time, and given her decks a pretty sharp slope; but a dozen men still held on, seven by the ropes near the ship's waist, a couple near the break of the poop, and three on the quarter-deck. Of these three my father made out one to be the skipper; close by him clung an officer in full regimentals—his name, they heard after, was Captain Duncanfield; and last came the tall trumpeter; and, if you'll believe me, the fellow was making shift there, at the very last, to blow 'God save the King.' What's more, he got to 'Send us victorious,' before an extra big sea came bursting across and washed them off the deck—every man but one of the pair beneath the poop—and he dropped his hold before the next wave, being stunned, I reckon. The others went out of sight at once, but the trumpeter—being, as I said, a powerful man, as well as a tough swimmer—rose like a duck, rode out a couple of breakers, and came in on the crest of the third. The folks looked to see him broke like an egg at their very feet; but when the smoke cleared there he was, lying face downward, on a ledge below them; and one of the men that happened to have a rope round him—I forget the fellow's name, if I ever heard it—jumped down and grabbed him by the ankle as he began to slip back. Before the next big sea, the pair were hauled high enough to be out of harm, and another heave brought them up to grass. Quick work, but master trumpeter wasn't quite dead; nothing worse than a cracked head and three staved ribs. In twenty minutes or so they had him in bed, with the doctor to tend him.

"Now was the time—nothing being left alive upon the transport—for my father to tell of the sloop he'd seen driving upon the Manacles. And when he got a hearing, though the most were set upon salvage, and believed a wreck in the hand, so to say, to be worth half-a-dozen they couldn't see, a good few volunteered to start off with him and have a look. They crossed Lowland Point; no ship to be seen on the Manacles nor anywhere upon the sea. One or two was for calling my father a liar. 'Wait till we come to Dean Point,' said he. Sure enough, on the far side of Dean Point they found the sloop's mainmast washing about with half-a-dozen men lashed to it, men in red jackets, every mother's son drowned and staring; and a little further on, just under the Dean, three or four bodies cast up on the shore, one of them a small drummer-boy, side-drum and all; and, near by, part of a ship's gig, with 'H. M. S. Primrose' cut on the sternboard. From this point on, the shore was littered thick with wreckage and dead bodies—the most of them marines in uniform; and in Godrevy Cove, in particular, a heap of furniture from the captain's cabin, and amongst it a water-tight box, not much damaged, and full of papers, by which, when it came to be examined, next day, the wreck was easily made out to be the 'Primrose,' of eighteen guns, outward bound from Portsmouth, with a fleet of transports for the Spanish war, thirty sail, I've heard, but I've never heard what became of them. Being handled by merchant skippers, no doubt they rode out the gale, and reached the Tagus safe and sound. Not but what the captain of the 'Primrose' (Mein was his name) did quite right to try and club-haul his vessel when he found himself under the land; only he never ought to have got there, if he took proper soundings. But it's easy talking.

"The 'Primrose,' sir, was a handsome vessel—for her size, one of the handsomest in the King's service—and newly fitted out

at Plymouth Dock. So the boys had brave pickings from her in the way of brass-work, ship's instruments, and the like, let alone some barrels of stores not much spoiled. They loaded themselves with as much as they could carry, and started for home, meaning to make a second journey before the preventive men got wind of their doings, and came to spoil the fun. But as my father was passing back under the Dean, he happened to take a look over his shoulder at the bodies there. 'Hullo!' says he, and dropped his gear, 'I do believe there's a leg moving?' and running fore, he stooped over the small drummer-boy that I told you about. The poor little chap was lying there, with his face a mass of bruises, and his eyes closed: but he had shifted one leg an inch or two, and was still breathing. So my father pulled out a knife, and cut him free from his drum—that was lashed on to him with a double turn of Manilla rope—and took him up and carried him along here, to this very room that we're sitting in. He lost a good deal by this; for when he went back to fetch the bundle he'd dropped, the preventive men had got hold of it, and were thick as thieves along the foreshore; so that 'twas only by paying one or two to look the other way that he picked up anything worth carrying off: which you'll allow to be hard, seeing that he was the first man to give news of the wreck.

"Well, the inquiry was held, of course, and my father gave evidence, and for the rest they had to trust to the sloop's papers, for not a soul was saved besides the drummer-boy, and he was raving in a fever, brought on by the cold and the fright. And the seamen and the five troopers gave evidence about the loss of the 'Despatch.' The tall trumpeter, too, whose ribs were healing, came forward and kissed the book; but somehow his head had been hurt in coming ashore, and he talked foolish-like, and 'twas easy seen he would never be a proper man again. The others were taken up to Plymouth, and so went their ways; but the trumpeter stayed on in Coverack; and King George, finding he was fit for nothing, sent him down a trifle of a pension after a while—enough to keep him in board and lodging, with a bit of tobacco over.

"Now the first time that this man—William Tallifer he called himself—met with the drummer-boy, was about a fortnight after the little chap had bettered enough to be allowed a short walk out of doors, which he took, if you please, in full regimentals. There never was a soldier so proud of his dress. His own suit had shrunk a brave bit with the salt water; but into ordinary frock and corduroys he declared he would not get, not if he had to go naked the rest of his life; so my father, being a good-natured man, and handy with the needle, turned to and repaired damages with a piece or two of scarlet cloth cut from the jacket of one of the drowned marines. Well, the poor little chap chanced to be standing, in this rig out, down by the gate of Gunner's Meadow, where they had buried two score and over of his comrades. The morning was a fine one, early in March month; and along came the cracked trumpeter, likewise taking a stroll.

"'Hullo!' says he; 'good mornin'! And what might you be doin' here?'

"'I was a-wishin',' says the boy, 'I had a pair o' drum-sticks. Our lads were buried yonder without so much as a drum tapped or a musket fired; and that's not Christian burial for British soldiers.'

"'Phut!' says the trumpeter, and spat on the ground; 'a parcel of marines!'

"The boy eyed him a second or so, and answered up. 'If I'd a tab of turf handy, I'd bung it at your mouth, you greasy cavalryman, and learn you to speak respectful of your betters. The marines are the handiest body o' men in the service.'

"The trumpeter looked down on him from the height of six-foot two, and asked: 'Did they die well?'

"'They died very well. There was a lot of running to and fro at first, and some of the men began to cry, and a few to strip off their clothes. But when the ship fell off for the last time, Captain Mein turned and said something to Major Griffiths, the commanding officer on board, and the major called out to me to beat to quarters. It might have been for a wedding, he sang it out so cheerful. We'd had word already that 'twas to be parade dress; and the men fell in as trim and decent as if they were going to church. One or two even tried to shave at the last moment. The major wore his medals. One of the seamen, seeing I had work to keep the drum steady—the sling being a bit loose for me, and the wind what you remember—lashed it tight with a piece of rope; and that saved my life afterwards, a drum being as good as a cork until it's stove. I kept beating away until every man was on deck; and then the Major formed them up and told them to die like British soldiers, and the chaplain read a prayer or two—the boys standing all the while like rocks, each man's courage keeping up the other's. The

chaplain was in the middle of a prayer when she struck. In ten minutes she was gone. That's how they died, cavalryman.'

"'And that was very well done, drummer of the marines. What's your name?'

"'John Christian.'

"'Mine's William Tallifer, trumpeter, of the Seventh Light Dragoons—the Queen's Own. I played "God save the King" while our men were drowning. Captain Duncanfield told me to sound a call or two, to put them in heart; but that matter of "God save the King" was a notion of my own. I won't say anything to hurt the feelings of a marine, even if he's not much over five-foot tall; but the Queen's Own Hussars is a tearin' fine regiment. As between horse and foot, 'tis a question o' which gets the chance. All the way from Sahagun to Corunna 'twas we that took and gave the knocks—at Mayorga and Rueda, and Bennyventy.' (The reason, sir, I can speak the names so pat, is that my father learnt 'em by heart afterwards from the trumpeter, who was always talking about Mayorga and Rueda and Bennyventy.) 'We made the rear-guard, under General Paget; and dove the French every time; and all the infantry did was to sit about in wine-shops till we whipped 'em out, an' steal an' straggle an' play the tom-fool in general. And when it came to a stand-up fight at Corunna, 'twas we that had to stay sea-sick aboard the transports, an' watch the infantry in the thick o' the caper. Very well they behaved, too; 'specially the Fourth Regiment, an' the Forty-Second Highlanders, an' the Dirty Half-Hundred. Oh, ay; they're decent regiments, all three. But the Queen's Own Hussars is a tearin' fine regiment. So you played on your drum when the ship was goin' down? Drummer John Christian, I'll have to get you a new pair o' drumsticks for that.'

"Well, sir, it appears that the very next day the trumpeter marched into Helston, and got a carpenter there to turn him a pair of box-wood drumsticks for the boy. And this was the beginning of one of the most curious friendships you ever heard tell of. Nothing delighted the pair more than to borrow a boat off my father and pull out to the rocks where the 'Primrose' and the 'Despatch' had struck and sunk; and on still days 'twas pretty to hear them out there off the Manacles, the drummer playing his tattoo—for they always took their music with them—and the trumpeter practising calls, and making his trumpet speak like an angel. But if the weather turned roughish, they'd be walking together and talking; leastwise, the youngster listened while the other discoursed about Sir John's campaign in Spain and Portugal, telling how each little skirmish befell; and of Sir John himself, and General Baird and General Paget, and Colonel Vivian, his own commanding officer, and what kind of men they were; and of the last bloody stand-up at Corunna, and so forth, as if neither could have enough.

"But all this had come to an end in the late summer, for the boy, John Christian, being now well and strong again, must go up to Plymouth to report himself. 'Twas his own wish; for I believe King George had forgotten all about him—and his friend wouldn't hold him back. As for the trumpeter, my father had made an arrangement to take him on as lodger, as soon as the boy left; and on the morning fixed for the start, he was up at the door here by five o'clock, with his trumpet slung by his side, and all the rest of his belongings in a small valise. A Monday morning it was, and after breakfast he had fixed to walk with the boy some way on the road towards Helston, where the coach started. My father left them at breakfast together, and went out to meat the pig, and do a few odd morning jobs of that sort. When he came back, the boy was still at table, and the trumpeter standing here by the chimney-place with the drum and trumpet in his hands, hitched together just as they be at this moment.

"'Look at this,' he says to my father, showing him the lock, 'I picked it up off a starving brass-worker in Lisbon, and it is not one of your common locks that one word of six letters will open at any time. There's *janius* in this lock; for you've only to make the rings spell any six-letter word you please and snap down the lock upon that, and never a soul can open it—not the maker, even—until somebody comes along that knows the word you snapped it on. Now, Johnny here's goin', and he leaves his drum behind him; for though he can make pretty music on it, the parchment gags in wet weather, by reason of the sea-water getting at it; an' if he carries it to Plymouth, they'll only condemn it and give him another. And, as for me, I shan't have the heart to put lip to the trumpet any more when Johnny's gone. So we've chosen a word together, and locked 'em together upon that; and, by your leave, I'll hang 'em here together on the hook over your fireplace. Maybe John-

ny'll come back, maybe not; maybe, if he comes, I'll be dead an' gone, an' he'll take 'em apart an' try their music for old sake's sake. But if he never comes, nobody can separate 'em; for nobody beside knows the word. And if you marry and have sons, you can tell 'em that here are tied together the souls of Johnny Christian, drummer of the marines, and William Tallifer, once trumpeter of the Queen's Own Hussars. Amen.'

"With that he hung the two instruments 'pon the hook there; and the boy stood up and thanked my father and shook hands; and the pair went forth of the door, towards Helston.

"Somewhere on the road they took leave of one another; but nobody saw the parting, nor heard what was said between them. About three in the afternoon the trumpeter came walking back over the hill; and by the time my father came home from the fishing, the cottage was tidied up, and the tea ready, and the whole place shining like a new pin. From that time for five years he lodged here with my father, looking after the house and tilling the garden. And all the while he was steadily failing; the hurt in his head spreading, in a manner, to his limbs. My father watched the feebleness growing on him, but said nothing. And from first to last neither spake a word about the drummer, John Christian; nor did any letter reach them, nor word of his doings.

"The rest of the tale you'm free to believe, sir, or not, as you please. It stands upon my father's words, and he always declared he was ready to kiss the Book upon it, before judge and jury. He said, too, that he never had the wit to make up such a yarn; and he defied any one to explain about the lock, in particular, by any other tale. But you shall judge for yourself.

"My father said that about three o'clock in the morning, April fourteenth, of the year 'fourteen, he and William Tallifer were sitting here, just as you and I, sir, are sitting now. My father had put on his clothes a few minutes before, and was mending his spiller by the light of the horn lantern, meaning to set off before daylight to haul the trammel. The trumpeter hadn't been to bed at all. Towards the last he mostly spent his nights (and his days, too) dozing in the elbow-chair where you sit at this minute. He was dozing then (my father said) with his chin dropped forward on his chest, when a knock sounded upon the door, and the door opened, and in walked an upright young man in scarlet regimentals.

"He had grown a brave bit, and his face was the color of wood-ashes; but it was the drummer, John Christian. Only his uniform was different from the one he used to wear, and the figures '38' shone in brass upon his collar.

"The drummer walked past my father as if he never saw him, and stood by the elbow-chair and said:

"'Trumpeter, trumpeter, are you one with me?'

"And the trumpeter just lifted the lids of his eyes, and answered, 'How should I not be one with you, Drummer Johnny—Johnny boy? Where you go, I go; until the discharge comes.'

"'The discharge has come to-night,' said the drummer; 'and the word is Corunna no longer.' And stepping to the chimney-place, he unhooked the drum and trumpet, and began to twist the brass rings of the lock, spelling the word aloud, so—C-O-R-U-N-A. When he had fixed the last letter, the padlock opened in his hand.

"'Did you know, trumpeter, that, when I came to Plymouth, they put me into a line regiment?'

"'The Thirty-eighth is a good regiment,' answered the old Hussar, still in his dull voice; 'I went back with them from Sahagun to Corunna. At Corunna they stood in General Fraser's division, on the right. They behaved well.'

"'But I'd fain see the marines again,' says the drummer, handing him the trumpet; 'and you, you shall call once more for the Queen's Own. Matthew,' he says, suddenly, turning on my father—and when he turned, my father saw for the first time that his scarlet jacket had a round hole by the breast-bone, and that the blood was welling there—'Matthew, we shall want your boat.'

"Then my father rose on his legs like a man in a dream, while they two slung on, the one his drum, and t'other his trumpet. He took the lantern and went quaking before them down to the shore, and they breathed heavily behind him, and they stepped into his boat, and my father pushed off.

"'Row you first for Dolor Point,' says the drummer. So my father rowed them out past the white houses of Coverack to Dolor Point, and there, at a word, lay on his oars. And the trumpeter, William Tallifer, put his trumpet to his mouth and sounded the *Revelly*. The music of it was like rivers running.

"'They will follow,' said the drummer. 'Matthew, pull you now for the Manacles.'

"So my father pulled for the Manacles, and came to an easy close outside Carn dû. And the drummer took his sticks and beat a tattoo, there by the edge of the reef, and the music of it was like a rolling chariot.

"'That will do,' says he, breaking off; 'they will follow. Pull now for the shore under Gunner's Meadow.'

"Then my father pulled for the shore and ran his boat in under Gunner's Meadow. And they stepped out, all three, and walked up to the meadow. By the gate the drummer halted, and began his tattoo again, looking out towards the darkness over the sea.

"And while the drum beat, and my father held his breath, there came up out of the sea and the darkness a troop of many men, horse and foot, and formed up among the graves; and others rose out of the graves and formed up—drowned marines with bleached faces, and pale hussars, riding their horses, all lean and shadowy. There was no sound of hoofs or accoutrements, my father said, but a soft sound all the while like the beating of a bird's wing, and a black shadow about the feet of all. The drummer stood upon a little knoll just inside the gate, and beside him the tall trumpeter, with hand on hip, watching them gather, and behind them both my father, clinging to the gate. When no more came, the drummer stopped playing, and said, 'Call the roll.'

"Then the trumpeter stepped towards the end man of the rank and called, 'Troop Sergeant Major Thomas Irons,' and the man, in a thin voice, answered, 'Here!'

"'Troop Sergeant Major Thomas Irons, how is it with you?'

"The man answered, 'How should it be with me? When I was young, I betrayed a girl; and when I was grown, I betrayed a friend, and for these things I suffer. But I died as a man ought. God save the King!'

"The trumpeter called to the next man, 'Trooper Henry Buckingham!' and the next man answered, 'Here!'

"'Trooper Henry Buckingham, how is it with you?'

"'How should it be with me? I was a drunkard, and I stole, and in Lago, in a wine-shop, I knifed a man. But I died as a man should. God save the King!'

"So the trumpeter went down the line; and when he had finished, the drummer took it up, hailing the dead marines in their order. Each man answered to his name, and each man ended with 'God save the King!' When all were hailed, the drummer stepped back to his mound, and called:

"'It is well. You are content, and we are content to join you. Go back and wait a little while.'

"With this he turned and ordered my father to pick up the lantern, and lead the way back. As my father picked it up, he heard the ranks of dead men cheer and call, 'God save the King!' all together, and saw them waver and fade back into the dark, like a breath fading off a pane.

"But when they came back here to the kitchen, and my father set the lantern down, it seemed they'd both forgot about him. For the drummer turned in the lantern-light—and my father could see the blood still welling out of the hole in his breast—and took the trumpet-sling from around the other's neck, and locked drum and trumpet together again, choosing the letters on the lock very carefully. While he did this, he said:

"'The word is no more Corunna, but Bayonne. As you left out an "n" in Corunna, so must I leave out an "n" in Bayonne.' And before snapping the padlock, he spelt out the word slowly—'B-A-Y-O-N-E.' After that, he used no more speech, but turned and hung the two instruments back on the hook, and then took the trumpeter by the arm; and the pair walked out into the darkness, glancing neither to right nor left.

"My father was on the point of following, when he heard a sort of sigh behind him; and there, sitting in the elbow-chair, was the very trumpeter he had just seen walk out by the door! If my father's heart jumped before, you may believe it jumped quicker now. But, after a bit, he went up to the man asleep in the chair and put a hand upon him. It was the trumpeter in flesh and blood that he touched; but, though the flesh was warm, the trumpeter was dead.

"Well, sir, they buried him three days after; and at first my father was minded to say nothing about his dream (as he thought it). But the day after the funeral, he met Parson Kendall coming from Helston market, and the parson called out: 'Have'ee heard the news the coach brought down this mornin'?' 'What news?' says my father. 'Why, that peace is agreed upon.' 'None too soon,' says my father. 'Not soon enough for our poor boys at Bayonne,' the parson answered. 'Bayonne!' cries my father, with a jump.

'Why, yes;' and the parson told him all about a great sally the French had made on the night of April 13th. 'Do you happen to know if the Thirty-eighth Regiment was engaged?' my father asked. 'Come, now,' said Parson Kendall, 'I didn't know you was so well up in the campaign. But, as it happens, I *do* know that the Thirty-eighth was engaged, for 'twas they that held a cottage and stopped the French advance.'

"Still my father held his tongue; and when, a week later, he walked into Helston and bought a 'Mercury' off the Sherborne rider, and got the landlord of the Angel to spell out the list of killed and wounded, sure enough, there among the killed was Drummer John Christian, of the Thirty-eighth Foot.

"After this, there was nothing for a religious man but to make a clean breast. So my father went up to Parson Kendall, and told the whole story. The parson listened, and put a question or two, and then asked:

"'Have you tried to open the lock since that night?'

"'I han't dared to touch it,' says my father.

"'Then come along and try.' When the parson came to the cottage here, he took the things off the hook and tried the lock. 'Did he say "*Bayonne?*" The word has seven letters.'

"'Not if you spell it with one "n" as *he* did,' says my father.

"The parson spelt it out—B-A-Y-O-N-E. 'Whew!' says he, for the lock had fallen open in his hand.

"He stood considering it a moment, and then he says, 'I tell you what. I shouldn't blab this all round the parish, if I was you. You won't get no credit for truth-telling, and a miracle's wasted on a set of fools. But, if you like, I'll shut down the lock again upon a holy word that no one but me shall know, and neither drummer nor trumpeter, dead nor alive, shall frighten the secret out of me.'

"'I wish to heaven you would, parson," said my father.

"The parson chose the holy word there and then, and shut the lock back upon it, and hung the drum and trumpet back in their place. He is gone long since, taking the word with him. And till the lock is broken by force, nobody will ever separate those two."

TO TUSITALA IN VAILIMA.

A POEM TO ROBERT LOUIS STEVENSON.

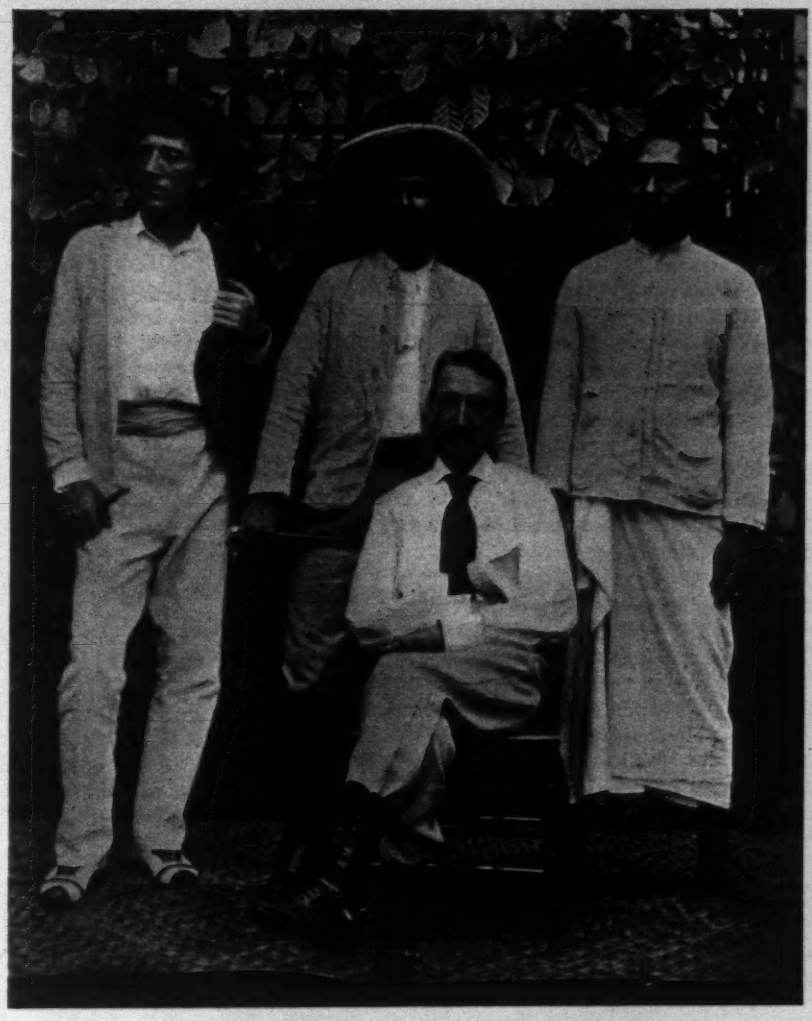
By Edmund Gosse.

I.

Clearest voice in Britain's chorus,
Tusitala!

Years ago, years four and twenty,
Gray the cloudland drifted o'er us,
When these ears first heard you talking,
When these eyes first saw you smiling.

Years of famine, years of plenty,
Years of beckoning and beguiling,
Years of yielding, shifting, baulking,—
When the good ship "Clansman" bore us
Round the spits of Tobermory,
Glens of Voulin like a vision,
Crags of Knoidart, huge and hoary,—
We had laughed in light derision,
Had they told us, told the daring
Tusitala,
What the years' pale hands were bearing,—
Years in stately, dim division.



LLOYD OSBOURNE. COUNT VON VURMBRANDT. A NATIVE CHIEF.
R. L. STEVENSON.

II.

Now the skies are pure above you,
Tusitala;
Feather'd trees bow down to love you;
Perfum'd winds from shining waters
Stir the sanguine-leav'd hibiscus
That your kingdom's dusk-ey'd daughters
Weave about their shining tresses;
Dew-fed guavas drop their viscous
Honey at the sun's caresses,
Where eternal summer blesses
Your ethereal musky highlands;—
Ah! but does your heart remember,
Tusitala,
Westward in our Scotch September,
Blue against the pale sun's ember,—
That low rim of faint long islands,

Barren granite-snouted nesses,
Plunging in the dull'd Atlantic,
Where beyond Tiree one guesses
At the full tide, loud and frantic?

III.

By strange pathways God hath brought you,
Tusitala,
In strange webs of fortune caught you,
Led you by strange moods and measures
To this paradise of pleasures!
And the body-guard that sought you
To conduct you home to glory,—
Dark the oriflammes they carried,
In the mist their cohort tarried,—
They were Languor, Pain, and Sorrow,
Tusitala!

Scarcely we endured their story
Trailing on from morn to morrow,
Such the devious road they led you,
Such the error, such the vastness,
Such the cloud that overspread you,
Under exile bow'd and banish'd,
Lost, like Moses in the fastness,
Till we almost deem'd you vanish'd.

IV.

Vanish'd? Ay, that's still the trouble,
Tusitala!
Though your tropic isle rejoices,
'Tis to us an Isle of Voices
Hollow like the elfin double
Cry of disembodied echoes,
Or an owlet's wicked laughter,
Or the cold and hornèd gecko's
Croaking from a ruined rafter,—
Voices these of things existing,
Yet incessantly resisting
Eyes and hands that follow after;
You are circled, as by magic,
In a surf-built palmy bubble,
Tusitala;
Fate hath chosen, but the choice is
Half delectable, half tragic,
For we hear you speak, like Moses,
And we greet you back, enchanted,
But reply's no sooner granted
Than the rifted cloud-land closes.

SEPTEMBER, 1894.

This poem, addressed to Robert Louis Stevenson, reached Mr. Stevenson at Vailima three days before his death. It is here printed, by permission, from "In Russet and Silver," by Edmund Gosse. Stone & Kimball, publishers, Chicago.

ROBERT LOUIS STEVENSON'S ADDRESS TO THE SAMOAN CHIEFS.

A FEW months before the death of the late Robert Louis Stevenson, certain Samoan chiefs whom he had befriended while they were under imprisonment for political causes, and whose release he had been instrumental in effecting, testified their gratitude by building an important piece of road leading to Mr. Stevenson's Samoan country-house, Vailima. At a corner of the road there was erected a notice, prepared by the chiefs and bearing their names, which reads:

"THE ROAD OF THE LOVING HEART.

"Remembering the great love of his highness, Tusitala, and his loving care when we were in prison and sore distressed, we have prepared him an enduring present, this road which we have dug to last forever."

On the completion of the road Mr. Stevenson entertained the chiefs and other guests at a native feast, wherein the food was spread upon the ground, on a table-cloth of green banana leaves; and, at the close of the repast, Mr. Stevenson delivered the following address, which, translated into their own tongue, was also read to the chiefs:

"We are met together to-day to celebrate an event and to do honor to certain chiefs, my friends—Lelei, Mataafa, Salevao, Po'e Teleso, Tupuola Lotofaga, Tupuola Amaile, Muliaiga, Ifopo, and Fatialofa. You are all aware in some degree of what has happened. You know these chiefs to have been prisoners; you perhaps know that during the term of their confinement I had it in my power to do them certain favors. One thing some of you cannot know, that they were immediately repaid by answering attentions. They were liberated by the new administration—by the king, and the chief justice, and the Ta'ita'ifono, who are here amongst us to-day, and to whom we all desire to tender our renewed and perpetual gratitude for that favor. As soon as they were free men—owing no man anything—instead of going home to their own places and families, they came to me; they offered to do this work for me as a free gift, without hire, without supplies, and I was tempted at first to refuse this offer. I knew the country to be poor; I knew famine threatening; I knew their families long disorganized for want of supervision. Yet I accepted, because I thought the lesson of that road might be more useful to Samoa than a thousand bread-fruit trees, and because to myself it was an exquisite pleasure to receive that which was so handsomely offered. It is now done; you have trod it to-day in coming hither. It has been made for me by chiefs—some of them old, some sick, all newly delivered from a harassing confinement, and in spite of weather unusually hot and insalubrious. I have seen these chiefs labor valiantly with their own hands upon the work, and I have set up over it, now that it is finished, the name of 'The Road of Gratitude' (the road of loving hearts), and the names of those that built it. *In perpetuam memoriam*, we say, and speak idly. At least so long as my own life shall be spared, it shall be here perpetuated; partly for my pleasure and in my gratitude, partly for others, to continually publish the lesson of this road."

Addressing himself to the chiefs, Mr. Stevenson then said:

"I will tell you, chiefs, that, when I saw you working on that road, my heart grew warm; not with gratitude only, but with hope. It seemed to me that I read the promise of something good for Samoa; it seemed to me, as I looked at you, that you were a company of warriors in a battle, fighting for the defence of our common country against all aggression. For there is a time to fight, and a time to dig. You Samoans may fight, you may conquer twenty times, and thirty times, and all will be in vain. There is but one way to defend Samoa. Hear it before it is too late. It is to make roads and gardens, and care for your trees, and sell their produce wisely, and, in one word, to occupy and use your country. If you do not, others will."

The speaker then referred to the parable of the talents (Matt. xxv. 14–30), and, continuing, impressively asked: "What are you doing with your talent, Samoa? Your three talents, Savaii, Upolu, and Tutuila? Have you buried it in a napkin? Not Upolu, at least. You have rather given it out to be trodden under feet of swine; and

the swine cut down food trees and burn houses, according to the nature of swine, or of that much worse animal, foolish man, acting according to his folly. 'Thou knewest that I reap where I sowed not, and gather where I have not strewed!' But God has both sown and strewed for you here in Samoa; he has given you a rich soil, a splendid sun, copious rain; all is ready to your hand, half done. And I repeat to you that thing which is sure: if you do not occupy and use your country, others will. It will not continue to be yours or your children's, if you occupy it for nothing. You and your children will in that case be cast out into outer darkness, where shall be weeping and gnashing of teeth; for that is the law of God which passeth not away. I who speak to you have seen these things. I have seen them with my eyes—these judgments of God. I have seen them in Ireland, and I have seen them in the mountains of my own country—Scotland—and my heart was sad. These were a fine people in the past—brave, gay, faithful, and very much like Samoans, except in one particular, that they were much wiser, and better at that business of fighting of which you think so much. But the time came to them as it now comes to you, and it did not find them ready. The messenger came into their villages, and they did not know him; they were told, as you are told, to use and occupy their country, and they would not hear. And now you may go through great tracts of the land and scarce meet a man or a smoking house, and see nothing but sheep feeding. The other people that I tell you of have come upon them like a foe in the night, and these are the other people's sheep who browse upon the foundation of their houses. To come nearer, and I have seen this judgment in Oahu also. I have ridden there the whole day along the coast of an island. Hour after hour went by, and I saw the face of no living man except that of the guide who rode with me. All along that desolate coast, in one bay after another, we saw still standing the churches that have been built by the Hawaiians of old. There must have been many hundreds, many thousands, dwelling there in old times, and worshipping God in these now empty churches. For to-day they were empty; the doors were closed, the villages had disappeared, the people were dead and gone; only the church stood on, like a tombstone over a grave, in the midst of the white men's sugar-fields. The other people had come and used that country, and the Hawaiians, who occupied it for nothing, had been swept away 'where is weeping and gnashing of teeth.'

"I do not speak of this lightly, because I love Samoa and her people. I love the land; I have chosen it to be my home while I live, and my grave after I am dead; and I love the people, and have chosen them to be my people to live and die with. And I see that the day is come now of the great battle; of the great and the last opportunity by which it shall be decided whether you are to pass away like these other races of which I have been speaking, or to stand fast and have your children living on and honoring your memory in the land you received of your fathers.

"The Land Commission and the Chief Justice will soon have ended their labors. Much of your land will be restored to you, to do what you can with. Now is the time the messenger is come into your villages to summon you; the man is come with the measuring rod; the fire is lighted in which you shall be tried whether you are gold or dross. Now is the time for the true champions of Samoa to stand forth. And who is the true champion of Samoa? It is not the man who blackens his face, and cuts down trees, and kills pigs and wounded men. It is the man who makes roads, who plants food trees, who gathers harvests, and is a profitable servant before the Lord, using and improving that great talent that has been given him in trust. That is the brave soldier; that is the true champion; because all things in a country hang together like the links of the anchor cable, one by another; but the anchor itself is industry.

"There is a friend of most of us who is far away; not to be forgotten where I am, where Tupuola is, where Po'e Lelei, Mataafa, Salevao, Po'e Teleso, Tupuola Lotofaga, Tupuola Amaile, Muliaiga, Ifopo, Fatialofa, Lemusu are. He knew what I am telling you; no man better. He saw the day was come when Samoa had to walk in a new path, and to be defended not only with guns and blackened faces, and the noise of men shouting, but by digging and planting, reaping and sowing. When he was still here amongst us, he busied himself planting cacao; he was anxious and eager about agriculture and commerce, and spoke and wrote continually; so that when we turn our minds to the same matters, we may tell ourselves that we are still obeying Mataafa. *Ua tautala mai pea o ia ua mamao.*

"I know that I do not speak to idle or foolish hearers. I speak to those who are not too proud to work for gratitude. Chiefs, you have worked for Tusitala, and he thanks you from his heart. In this I could wish you could be an example to all Samoa; I wish every chief in these islands would turn to and work, and build roads and sow fields and plant food trees, and educate his children and improve his talents—not for love of Tusitala, but for the love of his brothers and his children and the whole body of generations yet unborn.

"Chiefs, on this road that you have made, many feet shall follow. The Romans were the bravest and greatest of people; mighty men of their hands, glorious fighters and conquerors. To this day in Europe you may go through parts of the country where all is marsh and bush, and perhaps after struggling through a thicket you shall come forth upon an ancient road, solid and useful as the day it was made. You shall see men and women bearing their burdens along that even way, and you may tell yourself that it was built for them perhaps fifteen hundred years before—perhaps before the coming of Christ—by the Romans. And the people still remember and bless them for that convenience, and say to one another, that as the Romans were the bravest to fight, so they were the best at building roads.

"Chiefs, our road is not built to last a thousand years, yet in a sense it is. When a road is once built it is a strange thing how it collects traffic; how every year, as it goes on, more and more people are found to walk thereon, and others are raiscd up to repair and perpetuate it and keep it alive; so that perhaps even this road of ours may, from reparation to reparation, continue to exist and be useful hundreds and hundreds of years after we are mingled in the dust. And it is my hope that our far-away descendants may remember and bless those who labored for them to-day."

As completing the beautiful story which this address and its attendant circumstances tell of Mr. Stevenson's relations with the simple and confiding people among whom he had fixed his abode, it is appropriate to add here a passage from a letter written by Mr. Stevenson's step-son, Mr. Lloyd Osbourne, to Mr. Sidney Colvin, describing Stevenson's death and burial. Apologizing for the broken character of an earlier letter, Mr. Osbourne continues:

"It was interrupted by the arrival of several of our truest Samoan chiefs with their last presents for Louis—the fine mats that the body of a great man must be wrapped in. All night they sat around his body, in company with every one of our people, in stolid silence. It was in vain I attempted to get them away. 'This is the Samoan way,' they said, and that ended the matter. They kissed his hand, one by one, as they came in. It was the most touching sight. You cannot realize what the giving of the mats means—they are the Samoan's fortune; it takes a woman a year to make a single one. And these people of ours were of the poorest. It was always his wish to be buried on top of the mountain that bounds Vailima, *o le tia a Soalu* it is called—the grave of a famous chief of ancient times—he even had a window cut in his study so that he should always see the place. I was determined that his wishes would be followed out, so I sent that night to our best friends to bring in their men. Forty of them came with their chiefs; several of the Mataafa chiefs came, the few that are left in the countryside. I went and wrote down the speech of one of them that came and threw himself on his knees beside Louis. He was an old, worn-out man, and his crying made it hard for him to speak:

"'I am only a poor black man and ignorant. Others are rich and can give Tusitala the parting presents of rich things. I am poor and can give nothing this last day that Tusitala receives his friends. Yet I am not afraid to come and take the last look on my friend's face. Behold, Tusitala is dead; Mataafa is also dead to us. These two great friends have been taken by God. When Mataafa went, who was our support but Tusitala? We were in prison and he cared for us. The day was no longer than his kindness. You, here, are great folk and full of love. Yet who is there here so great as Tusitala? Who is there here more loving-compassionate? What is your love to his love? O Tusitala, this is the last time I see your face till we meet with God together!'

"The forty men went to work with their knives and axes and cut a straight road up the steep face of the mountain. I went up and chose the spot and prepared it. Nothing more bold or picturesque could be imagined. It is a narrow ledge no wider than a room, and flat as a table, the mountain descending precipitously on both sides; the vast ocean in front, and the white beaches on which the surf is breaking everlastingly; mountains on either side

adrift with mist. A year ago he was full of the project of making a road there, to prepare and plant the spot that would ultimately receive him; yet we shrank from it, not a little to his displeasure. I assure you, if we had thought a moment of the difficulties involved, it could never have been done. But I did not think. I knew it had to be done, and in that spirit I did it. All the morning the Samoans were coming up with their flowers. There was no display of affection, no keening; yet they went and cried in corners. There was no pretence, thank God. We would have no strangers on that day; I had invited only the people I knew loved him, and none others. There was none of the professionalism that makes death so horrible. Even the coffin was made by one of our oldest friends, and was a work of love. The tawdry plush and velvet that encased it I covered with the tattered flag we had flown over the yacht, and buried it in the grave so. No hands touched his body save those of his own people; his own folk dug his grave, and when we covered it in they seized the spade from the strangers and would let them take no part. It was a terrible matter to get the whites up there; H. nearly fainted at the outset, and had to return. I sent the body up, before we went, with relief parties, knowing that it would be a terrible matter to get accomplished. I wanted no one to see this harassing work, the resting on the road and such things. When we got up, the flag-covered coffin was lying decently beside the grave. Clarke, one of his oldest friends here (a missionary), read the Church of England service, and I made it short and incorporated one of Louis's own prayers that he had written and said the Sunday night before his death. Another old friend, who had risen from a sick bed to come, and who had to travel from another part of the island to arrive in time, made a Samoan speech."

THE WILL OF ROBERT LOUIS STEVENSON.

THIS is the last will and testament of me, Robert Louis Balfour Stevenson, known as Robert Louis Stevenson, Advocate of the Scots Bar :—

I hereby revoke all former wills and codicils. I appoint Charles Baxter, writer to the signet, Edinburgh, and Henry James, novelist, London, to be my executors.

ONE FOURTH PART of that part of my late father's estate, real and personal, now held in liferent by my mother, Margaret Isabella Balfour or Stevenson, I leave to Robert Alan Mowbray Stevenson, Dora Stevenson or Fowke, and Katharine Elizabeth Stevenson or de Mattos, to be divided among them in the proportion of two shares to the said Robert Alan Mowbray Stevenson, and to the said Dora Stevenson or Fowke, and Katharine Elizabeth Stevenson or de Mattos, one share each.

Of the remaining three fourth parts of my said father's estate, one fourth part of the three fourth parts I give and bequeath to the said Charles Baxter and to Graham Balfour of the Inner Temple, Barrister at Law, to invest and hold in trust and pay the interest on the same to my step-daughter, Isobel Stewart Osbourne or Strong, during her lifetime, and after her decease, to administer the said sum in the interests of her son, Joseph Austin Strong, until he shall have completed his twenty-sixth year, when he is to receive the principal sum of the said fourth part of three-fourth parts, or such part of the said sum as shall not already have been so expended in his interests. But I hereby direct that in case of the decease of the said Joseph Austin Strong, without issue, before having completed his twenty-sixth year, his interest in the said sum shall relapse into my residuary estate.

And the remaining three fourth parts of the said three fourth parts of my said father's estate, held in liferent by my said mother, together with all the rest of my money, books, royalties, manuscripts, and other effects, and property, real and personal, wherever situate, I bequeath in liferent to my wife, Fanny Matilda Van de Grift or Osbourne or Stevenson, and in fee, upon her decease, to her son Samuel Lloyd Osbourne, known as Lloyd Osbourne, whom I hereby constitute my residuary legatee. But the estate known as Vanu Manutagi, situate in the Municipal District of Apia, in the Island of Upolu, Samoa, I hereby except from the said liferent and fee, and give and bequeath to my step-daughter, the said Isobel Stewart Osbourne or Strong, in fee simple.

And in case the said Lloyd Osbourne shall predecease me, I make this second

disposition of my property: the bequest of Vanu Manutagi to Isobel Stewart Strong, and of one fourth part of my late father's estate to Robert Alan Mowbray Stevenson, Dora Stevenson or Fowke, and Katharine Elizabeth Stevenson or de Mattos, shall be maintained.

The liferent in favor of my said wife, as already constituted, shall be likewise maintained. But in case she shall have predeceased me, or upon her death, then I give and bequeath to the said Charles Baxter, and the said Graham Balfour, the estate of Vailima, in the Island of Upolu, Samoa, with all crops, plantations, houses, furniture, implements, and appurtenances thereto belonging, if the said estate of Vailima shall be in my possession at the time of my decease, together with one half part of my whole remaining property whatsoever, to be by them held in trust for the said Isobel Stewart Osbourne or Strong, during her lifetime, and after her death, for her son the said Joseph Austin Strong, and in fee to him the said Joseph Austin Strong, upon his completing his twenty-sixth year. But I hereby direct that in case of the decease of the said Joseph Austin Strong, without leaving a wife or legitimate issue, and before having completed his twenty-sixth year, his interest under this will shall revert to his said mother, whom I hereby constitute my sole residuary legatee.

And the remaining one half part of my whole remaining property whatsoever I give and bequeath to the said Charles Baxter and the said Henry James, to invest and hold in trust and to pay the interest on the said half part to Sidney Colvin, Keeper of the Print Room, British Museum, for his life, and upon his decease to pay the said half part to the said Robert Alan Mowbray Stevenson, the said Dora Stevenson or Fowke, the said Katharine Elizabeth Stevenson or de Mattos, and to Jean Margaret Stevenson or Denton, their sister, to be divided equally among them.

In witness whereof, I have hereunto set my hand and seal this day of September, eighteen hundred and ninety-three. Eight words deleted and three underlined before signature.

(Signed) ROBT. LOUIS STEVENSON,
Samoa.

Signed, sealed, published, and declared by the said Robert Louis Stevenson as and for his last will and testament in our presence, who, at his request, in his presence, and in the presence of each other, all being in one room, have hereunto subscribed our names as witnesses thereto at Vailima, in the Island of Upolu, Samoa, this day of September, A.D., 1893.

(Signed) ALFRED JAMES DAPLYN, Artist.
70 Pitt Street, Sydney, N.S.W.
(Signed) GRAHAM BALFOUR, Barrister at Law,
New University Club,
St. James Street,
London, S.W.

In exposition of the will, the Hon. James H. Mulligan, United States consul-general to Samoa, who was an intimate friend of Stevenson's, wrote in a recent letter from Apia, Samoa:

"The layman may need to be reminded that several of the provisions of the foregoing instrument are contingent upon the event of the beneficiaries named dying before the testator. Bearing in mind the fact that all outlived him, will conduce to a more ready and concordant construction of the whole.

"The disposition as to the Vailima plantation fails, for he had already divested himself of the title; and this provision was intended to operate only in the event that under the conditions of the deed of settlement to that estate, which he had already made to his wife, it should revert to him.

"By a deed of settlement of date April 20, 1892, in which he describes himself—unlike the signature to the will—as 'Robert Louis Balfour Stevenson, recently of Skerryvour, Bournemouth, Hants, England, but now of Vailima, Upolu, Samoa,' uniting with his wife, he conveys in trust to 'Charles Baxter, of Edinburgh, writer to the signet, the plantation of Vailima, containing three hundred acres or thereabouts, together with all the furniture, articles of household or domestic use or ornament, pictures and effects now being in, upon or about certain house or houses upon said premises.'

"This deed of settlement, which covers twenty mortal pages, when reduced to its substance, rejecting the redundant legal repetitions, and omitting extended provisions for contingencies, invests the trustee named with the title of all the property mentioned, to be by him held during the joint lives of the novelist and his wife, for and as the separate estate of his wife, 'Fanny Matilda Stevenson, otherwise known as Fanny Van de Grift Stevenson,' and for her use, independent of the said Robert Louis Balfour Stevenson, and of his debts, control, and engagements. It further provides that the trust shall, after the death of Mrs. Stevenson, continue for the

use and benefit of such person or persons as she may see fit, in writing, to designate or name in her will.

"The consideration recited is love and affection, and ten shillings, cash in hand, paid.

"The disposition, in the will, of Vailima or 'Five Waters,' which was made, as will be noticed, more than a year after the execution of the deed of trust, was made to meet the contingency of the death of Mrs. Stevenson before that of the novelist, without having made such nomination as would continue the trust.

"The estate which he speaks of as his late father's estate, held in liferent by his mother, consists of assets worth but little less than twenty thousand pounds, or the ideal American cool one hundred thousand dollars.

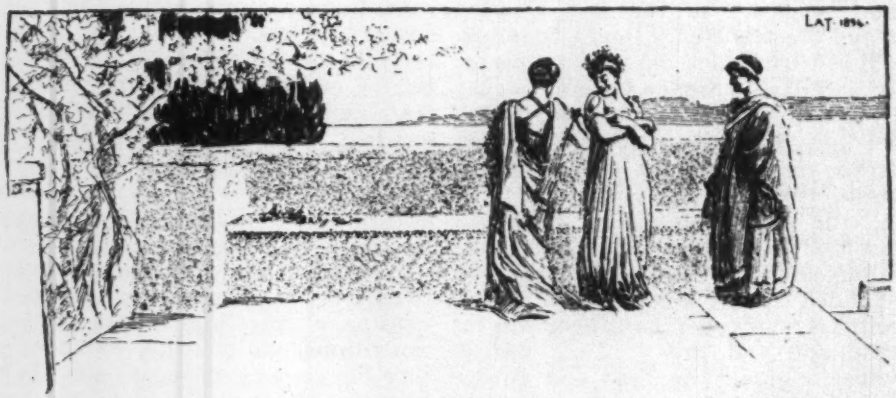
"Joseph Austin Strong, so well provided for, is a son of Joseph D. Strong, whom Mr. Stevenson in the 'Foot-note to History,' in mention of the coming of the Hawaiian Embassy to Samoa, speaks of as 'coming in the surprising capacity of government artist.'

"Mr. Graham Balfour, a witness to the will, is a distant cousin who has been for three or four years almost a member of Mr. Stevenson's family. He is a young English gentleman of fortune, a globe-trotter who has been for several months past buried in some of the South Sea Islands.

"Mr. Stevenson suffered no stint of friends, but that one—the friend of a lifetime—to whom his heart clung above all others, in whom all his faith centred, is that Charles Baxter, a writer to the signet,—his trustee and executor.

"This friend, finding a holiday in a change that came in his business, left Scotland last November for a long-promised visit to Samoa. When he arrived his friend was no more.

"It was this Charles Baxter to whose skill and ability is due the adjustment of the many widely-scattered copyrights differently owned, that made possible the glorious 'Edinburgh Edition' of Mr. Stevenson's works, in twenty noble volumes, royal in paper, print, and binding, limited to one thousand sets, each numbered and signed by Mr. Baxter, whose initials, along with those of the author, glow through the water marks of the paper. Mr. Stevenson never lived to see a single volume of this lasting monument of his genius in which his heart was so wrapped up."



THE AMERICAN EXCHANGE BANK ROBBERY.

STORIES FROM THE ARCHIVES OF THE PINKERTON DETECTIVE AGENCY.

By Cleveland Moffett.

LATE in the afternoon of Friday, May 4, 1888, two messengers left the American Exchange National Bank, at the northeast corner of Cedar Street and Broadway, New York City, and started down the busy thoroughfare for the office of the Adams Express Company, a few blocks distant. They carried between them, each holding one of the handles, a valise made of canvas and leather in which had just been placed, in the presence of the paying teller, a package containing forty-one thousand dollars in greenbacks, to be transmitted to the United States Treasury, in Washington, for redemption.

Although the messengers—Edward S. Crawford and old "Dominie" Earle—were among the bank's most trusted employees, their honesty being considered above suspicion, they were nevertheless followed at a short distance by bank detective McDougal, an old-time police detective, whose snow-white beard and ancient style of dress have long made him a personage of note on Broadway. Detective McDougal followed the messengers, not because he had any fear that they were planning a robbery, but because it is an imperative rule of all great banking institutions that the transfer of large sums of money, even for very short distances, shall be watched over with the most scrupulous care. Each messenger is supposed to act as a check on his fellow, while the detective walking in the rear is a check on both. In such cases all three men are armed, and would use their weapons without hesitation should an attack be made upon them.

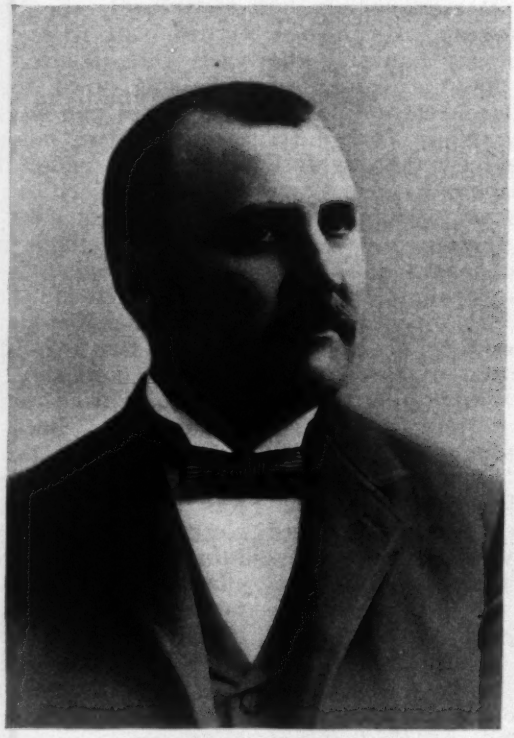
The messengers walked on through the hurrying crowd, keeping on the east sidewalk as far as Wall Street, where they turned across and continued their way on the west sidewalk as far as the Adams Express Company's building, which stands at No. 59 Broadway. Having seen them safely inside the building, the detective turned back to the bank, where his services were required in other matters.

Passing down the large room strewn with boxes and packages ready for shipment, the two messengers turned to the right and ascended the winding stairs that in those days led to the money department on the second floor. No one paid much attention to them, as at this busy hour bank messengers were arriving and departing every few minutes. Still, some of the clerks remembered afterwards, or thought they did, that the old man, Earle, ascended the stairs more slowly than his more active companion, who went ahead, carrying the valise alone. Both messengers, however, were present at the receiving-window of the money department when the package was taken from the valise and handed to a clerk, who gave a receipt for it in the usual form: "Received from the American Exchange Bank one package marked as containing forty-one thousand dollars for transfer to Washington." Or, at least, so far as has ever been proved, both messengers were present when the package was handed in.

The two messengers, having performed their duty, went away, Earle hurrying to the ferry to catch a train out in New Jersey, where he lived, and Crawford returning to the bank with the empty valise. The valuable package had meantime been ranged behind the heavily wired grating along with dozens of others, some of them containing much larger sums. The clerks in the money department of the Adams Express Company become so accustomed to handling gold, silver, and bank notes, fortunes done up in bags, boxes, or bundles, that they think little more of this precious merchandise than they might of so much coal or bricks. A quick glance, a touch of the hand, satisfies them that the seals, the wrappings, the labels, the general

appearance of the packages are correct, and, having entered them duly on the way-bills and turned them over to the express messenger who is to forward them to their destination, they think no more about them.

In this instance the forty-one thousand dollar package, after a brief delay, was locked in one of the small portable safes, a score of which are always lying about in readiness, and was lowered to the basement, where it was loaded on one of the company's wagons. The wagon was then driven to Jersey City, guarded by the messenger in charge, his assistant, and the driver, all three men being armed, and was safely placed aboard the night express for Washington. It is the company's rule that the messenger who starts with a through safe travels with it to its destination, though he has to make a journey of a thousand miles. Sometimes the destination of money under transfer is so remote that the service of several express companies is required, and in that case the messenger of the Adams Company accompanies the money only to the point where it is delivered to the messenger of the next company, and so on.



ROBERT A. PINKERTON.

The next morning, when the package from the American Exchange Bank was delivered in Washington, the experienced Treasury clerk who received it perceived at once, from the condition of the package, that something was wrong. Employees of the Treasury Department seem to gain a new sense, and to be able to distinguish bank-notes from ordinary paper merely by the "feel," even when done up in bundles. Looking at the label marked forty-one thousand dollars, the clerk shook his head and called the United States Treasurer, James W. Hyatt, who also saw something suspicious in the package. Mr. Blanchard, the Washington agent of the Adams Express Company, was summoned, and in his presence the package was opened. It was found to contain nothing more valuable than slips of brown straw paper, the coarse variety used by butchers in wrapping up meat, neatly cut to the size of bank-notes. The forty-one thousand dollars was missing.

It was evident that at some point between the bank and the Treasury a bogus package had been substituted for the genuine one. The question was, where and by whom had the substitution been made.

THREE THEORIES REGARDING THE ROBBERY.

The robbery was discovered at the Treasury in Washington on Saturday morning; the news was telegraphed to New York immediately, and on Saturday afternoon anxious councils were held by the officials of the American Exchange Bank and the Adams Express Company. Inspector Byrnes was notified, the Pinkerton agency was notified, and urgent despatches were sent to Mr. John Hoey, president of the express company, and to Robert Pinkerton, who were both out of town, that their presence was required immediately in New York. Meanwhile everyone who had had any connection with the stolen package —the paying teller of the bank, other bank clerks, the messengers, detective McDougal, the receiving clerks of the Adams Express Company, and the express messenger—was closely examined. Where and how the forty-one thousand dollars had been stolen was important to learn not only in itself, but also to fix responsibility for the sum lost as between the bank and the express company.

Three theories were at once suggested: the bogus package might have been substituted for the genuine one either at the

bank, between the bank and the express office, or between the express office and the Treasury. The first assumption threw suspicion on some of the bank employees, the second upon the two bank messengers, the third upon some one in the service of the express company. Both the bank and the express company stoutly maintained the integrity of its own employees.

An examination of the bogus package disclosed some points of significance. Ordinarily, when bank-notes are done up for shipment by an experienced clerk, the bills are pressed together as tightly as possible in small bundles, which are secured with elastic bands, and then wrapped snugly in strong paper until the whole makes a package almost as hard as a board. Around this package the clerk knots strong twine, melts a drop of sealing wax over each knot, and stamps it with the bank's seal. The finished package thus presents a neat and trim appearance. But in the present instance the package received at the Treasury was loosely and slovenly wrapped, and the seals seemed to have been put on either in great haste or by an inexperienced hand. Moreover, the label must have been cut from the stolen package and pasted on the other, for the brown paper of a previous wrapping showed plainly in a margin running around the label. The address on the package read :

"$41,000.

United States Treasurer,
Washington,
D. C."

All this was printed, except the figures 41,000, even the dollar sign. The figures were in the writing of Mr. Watson, the paying teller of the bank, whose business it was to oversee the sending of the money. His initials were also marked on the label, with the date of the sending ; so that on examining the label Mr. Watson himself was positive that it was genuine.

All this made it tolerably clear that the robbery had not been committed at the bank before the package was intrusted to the two messengers ; for no bank clerk would have made up so clumsy a package, and the paying teller himself, had he been a party to the crime, would not have cut the label written by himself from the genuine package and pasted it on the bogus one. He would simply have written out another label, thus lessening the chances of detection. Furthermore, it was shown by testimony that during the short time between the sealing up of the package in the paying teller's department and its delivery to "Dominie" Earle, who took it first, it was constantly under the observation of half a dozen bank employees ; so that the work of cutting off the label and pasting it on the bogus package could scarcely have been accomplished then without detection.

Earle and Crawford, the bank messengers, were submitted to repeated examinations, but their statements threw no light upon the mystery. Both stuck persistently to the same story, which was that neither had loosed his hold on the handle of the valise from the moment they left the bank until they had delivered the package through the window of the express company's money department. Accepting these statements as true, it was impossible that the package had been tampered with in this part of its journey ; while the assumption that they were not true, implied apparently a collusion between the two messengers, which was highly improbable, since "Dominie" Earle had been a servant of the bank for thirty-five years, and had never in that long term failed in his duty or done anything to arouse distrust. Before entering the bank's employ he had been a preacher, and his whole life seemed to have been one of simplicity and honest dealing.

As for Crawford, who was, indeed, a new man, it was plain that if the "Dominie" told the truth, and had really kept his hold on the valise-handle all the way to the express company's window, his companion, honest or dishonest, would have had no opportunity to cut off the label, paste it on the bogus package, and make the substitution.

Finally came the theory that the money package had been stolen while in the care of the express company. In considering this possibility it became necessary to know exactly what had happened to the package from the moment it was taken through the window of the money department up to the time of its delivery at the Treasury. The package was first receipted for by the head of the money department, Mr. J. C. Young. Having handed the receipt to the bank messengers, he passed the package to his assistant, Mr. Littlefield, who in turn passed it on to another clerk, Mr. Moody, who way-billed it in due form for Washington, and then placed it in the iron safe which was to carry it on its journey. Two or three hours may have elapsed between the receipt of the package and the shipment of the safe, but during this time the

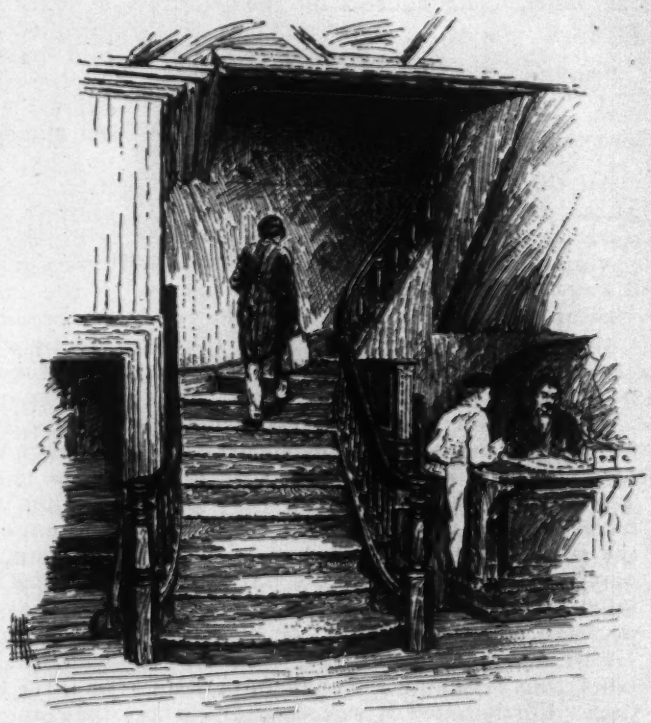
package was constantly in view of five or six clerks in the money department, and, unless they were all in collusion, it could scarcely have been stolen by any one there. As for the express messenger who accompanied the safe on the wagon to the train, and then on the train to Washington, and then on another wagon to the Treasury building, his innocence seemed clearly established, since the safe had been locked and sealed, according to custom, before its delivery to him, and showed no signs of having been tampered with when opened in Washington the following morning by another representative of the express company. The messenger who accompanies a through safe to its destination, indeed, has small chance of getting inside, not only because of the protecting seal, but also because he is never allowed to have the key to the safe or to know its combination. Recently, as a still further safeguard, the Adams Express Company has introduced into its cars an equipment of large burglar-proof and fireproof safes, especially as a guard against train-robbers, who found it comparatively easy to break open the small safes once in use. In the present instance, of course, there was no question of train-robbers.

One important fact stood out plain and uncontrovertible, that a responsible clerk in the money department of the Adams Express Company had receipted for a package supposed to contain forty-one thousand dollars intrusted to the company by the bank. This threw the responsibility on the company, at least until it could be shown that the package as delivered contained brown paper, and not bank-notes. In accordance with their usual policy of promptness and liberality, the Adams people paid over to the American Exchange Bank the sum of forty-one thousand dollars and said no more about it. But their silence did not mean inactivity. Their instructions to their detectives in this case, as in all similar cases, were to spare neither time nor expense, but to continue the investigation until the thieves had been detected and brought to punishment, or until the last possibility of clearing up the mystery had certainly expired.

ROBERT PINKERTON TAKES THE CASE IN HAND.

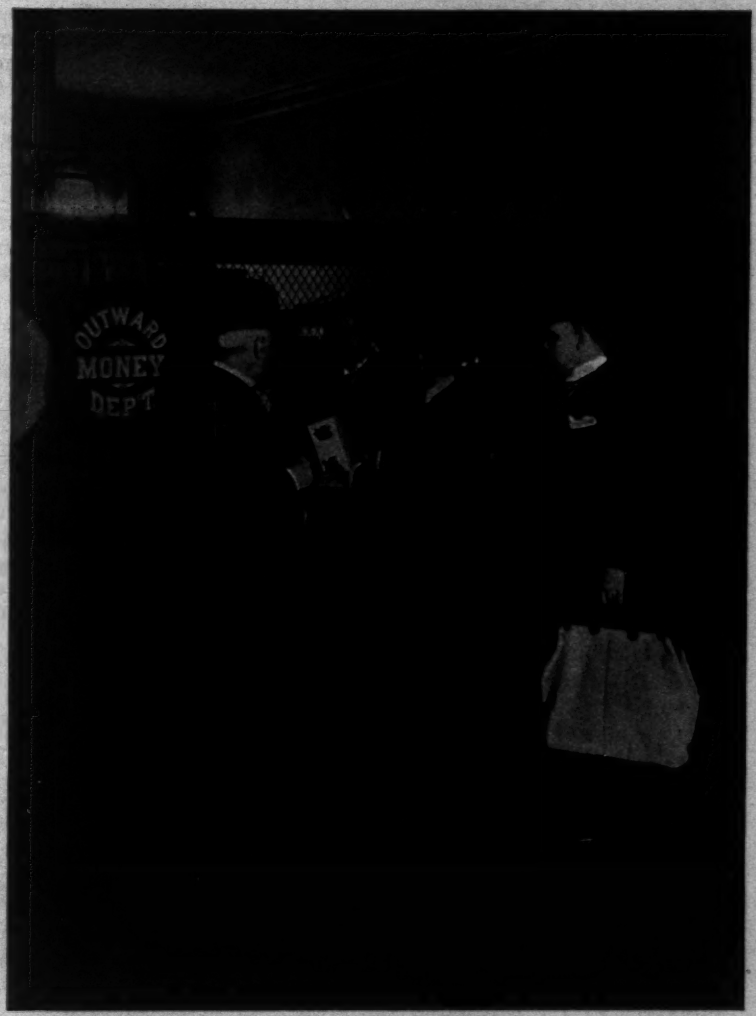
Hastening to New York in response to the telegram sent him, Robert Pinkerton examined the evidence already collected by his representative, and then himself questioned all persons in any way concerned in the handling of the money. Mr. Pinkerton, after his investigation, was not so sure as some persons were that the package had been stolen by employees of the express company. He inclined rather to the opinion that, in the rush of business in the express office, the false package, badly made up though it was, might have been passed by one of the clerks. This conclusion turned his suspicions first toward the two bank messengers. Of these he was not long in deciding "Dominie" Earle to be, in all probability, innocent. While he had known of instances where old men, after years of unimpeachable life, had suddenly turned to crime, he knew such cases to be infrequent, and he decided that Earle's was not one of them. Of the innocence of the other messenger, Crawford, he was not so sure; he began a careful study of his record.

Edward Sturgis Crawford at this time



STAIRWAY TO MONEY DEPARTMENT, ADAMS EXPRESS COMPANY'S OFFICE.

was about twenty-seven years old, a man of medium height, a decided blonde, with large blue eyes, and of a rather effeminate type. He went scrupulously dressed, had white hands with carefully manicured nails, parted his hair in the middle, and, altogether, was somewhat of a dandy. He had entered the bank on the recommendation of a wealthy New Yorker, a young man about town, who, strange to say, had made Crawford's acquaintance, and, indeed, struck up quite a friendship with him while the latter was serving in the humble capacity of conductor on a Broadway car. This was about a year before the time of the robbery. Thus far Crawford had attended to his work satisfactorily, doing nothing to arouse suspicion unless it was indulging a tendency to extravagance in dress. His salary was but forty-two dollars a month, and yet he permitted himself such luxuries as silk underclothes, fine patent leather shoes, and other apparel to correspond. Pushing back farther into Crawford's record Mr. Pinkerton learned that he had grown up in the town of Hancock, New York, where he had been accused of stealing sixty dollars from his employer, and afterwards of perpetrating a fraud upon an insurance company. Putting all these facts together, Mr. Pinkerton decided that, in spite of a perfectly self-possessed manner and the good opinion of his employers, Crawford would stand further watching. His general conduct subsequent to the robbery was, however, such as to convince every one, except the dogged detective, that he was innocent of this crime. In vain did "shadows" follow him night and day, week after week; they discovered nothing. He retained his place in the bank, doing the humble duties of messenger with the same regularity as before, and living apparently in perfect content with the small salary he was drawing. His expenses were lightened, it is true, by an arrangement voluntarily offered by his friend, the young man about town, who invited him to live in his own home, on Thirty-eighth Street, whereby not only was he saved the ordinary outlay for lodgings, but many comforts and luxuries were afforded him that would otherwise have been beyond his reach.



RECEIVING DESK, MONEY DEPARTMENT, ADAMS EXPRESS COMPANY'S OFFICE.

Thus three months went by with no result; then four, five, six months, and, finally, all but a year. Then, suddenly, in April, 1889, Crawford took his departure for Central America, giving out to

his friends that he was going there to assume the management of a banana plantation of sixty thousand acres owned by his wealthy friend and benefactor.

Before Crawford sailed, however, the "shadows" had informed Mr. Pinkerton of Crawford's intention, and asked instructions. Should they arrest the man before he took flight, or should they let him go? Mr. Pinkerton realized that he was dealing with a man who, if guilty, was a criminal of unusual cleverness and cunning. His arrest would probably accomplish nothing, and might spoil everything. There was little likelihood that the stolen money would be found on Crawford's person; he would probably arrange some safer way for its transmission. Perhaps it had gone ahead of him to Central America weeks before.

"We'll let him go," said Mr. Pinkerton, with a grim smile, "only we'll have some one go with him."

EVIDENCE ACCUMULATES AGAINST YOUNG CRAWFORD.

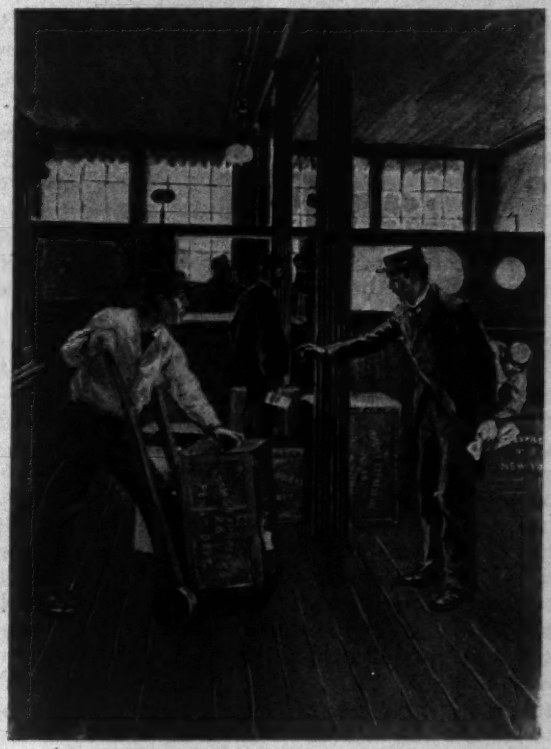
The Pinkerton representative employed to shadow Crawford on the voyage sent word by the first mail after their arrival in Central America that the young man had rarely left his state-room, and that whenever forced to do so, had employed a colored servant to stand on guard so that no one could go inside. Nothing more occurred, however, to justify the suspicion against Crawford until the early part of 1890, when the persistent efforts of the detectives were rewarded by an important discovery. It was then that Robert Pinkerton learned that Crawford had told a deliberate lie when examined before the bank officials in regard to his family relations in New York. He had stated that his only relative in New York was a brother, Marvin Crawford, who was then driving a street car on the Bleecker Street line. Now it came to the knowledge of Mr. Pinkerton that Crawford had in the city three married aunts and several cousins. The reason for Crawford's having concealed this fact was presently brought to light through the testimony of one of the aunts, who, having been induced to speak, not without difficulty, stated that on Sunday, May 6, 1888, two days after the robbery, her nephew had called at her house and given her a package which he said contained gloves, and which he wished her to keep for him. It was about this time that the papers contained the first news of the robbery, and her suspicions having been aroused, she picked a hole in the paper covering of the package large enough to let her see that there was money inside. Somewhat disturbed, she took the package to her husband, who opened it and found that it contained two thousand dollars in bank-notes. Realizing the importance of this discovery, the husband told his wife that when Crawford came back to claim the package she should refer him to him, which she did.

Some days later, on learning from his aunt that she had spoken to her husband about the package, Crawford became greatly excited, and told her she had made a dreadful mistake. A stormy scene followed with his uncle, in which the latter positively refused to render him the money until he was satisfied that Crawford was its rightful possessor. A few days later Crawford's young friend, the man about town, called on the uncle, and stated that the money in the package belonged to him and must be surrendered. The uncle was still obdurate; and when Crawford and his friend became violent in manner, he remarked meaningly that if they made any more trouble he would deliver the package of money to the Adams Express Company and let the company decide to whom it belonged. This brought the angry claimants to their senses, and Crawford's friend left the house and never returned. Finally Crawford's uncle compromised the contention by giving his nephew five hundred dollars out of the two thousand, and retaining the balance himself, in payment, one must suppose, for his silence. At any rate, he kept fifteen hundred dollars, and also a receipt in Crawford's handwriting for the five hundred dollars paid to him.

Other members of the family recalled the fact that a few days after the robbery Crawford had left in his aunt's store-room a valise, which he had subsequently called for and taken away. None of them had seen the contents of the valise, but they remembered that Crawford on the second visit had remained alone in the store-room for quite a time, perhaps twenty minutes, and after his departure they found there a rubber band like those used at the bank. The detectives also discovered that on the 15th of May, 1888, eleven days after the robbery, Crawford had rented a safety deposit box at a bank in the Fifth Avenue Hotel building, under the name of Eugene Holt. On the 18th of May he had exchanged this box for a larger one. During the following months

he made several visits to the box, but for what purpose was not known.

On presenting this accumulated evidence to the Adams Express Company, along with his own deductions, Robert Pinkerton was not long in convincing his employers that the situation required in Central America the presence of some more adroit detective than had yet been sent there. The difficulty of the case was heightened by the fact that Crawford had established himself in British Honduras, and that the extradition treaty between the United States and England did not then, as it does now, provide for the surrender of criminals guilty of such offences as that which Crawford was believed to have committed. Crawford could be arrested, therefore, only by being gotten into another country by some clever manœuvre. The man best capable of carrying out such a manœuvre was Robert Pinkerton himself; and, accordingly, the express company, despite the very considerable expense involved, and fully aware that the result must be uncertain, authorized Mr. Pinkerton to go personally in pursuit of Crawford.



MONEY DEPARTMENT, ADAMS EXPRESS COMPANY'S OFFICE. TRANSFERRING MONEY SAFES TO THE ELEVATOR.

MR. PINKERTON VISITS CRAWFORD AT HIS PLANTATION.

Mr. Pinkerton arrived at Belize, the capital of British Honduras, on February 17, 1890, nearly two years after the date of the robbery. There he learned that Crawford's plantation was about ninety miles down the coast, a little back of Punta Gorda. Punta Gorda lies near the line separating British Honduras from Guatemala, and is not more than a hundred miles from Spanish Honduras, or Honduras proper, directly across the Gulf of Honduras.

Difficulties confronted Mr. Pinkerton from the very start. People were dying about him every day of yellow fever, and when he started for Punta Gorda on a little steamer, the engineer came aboard looking as yellow as saffron, and immediately began to vomit, so that he had to be taken ashore. Then the engine broke down several times on the voyage, and the heat was insufferable.

As the boat steamed slowly into Punta Gorda it passed a small steam craft loaded with bananas. "Look," said one of the passengers to Mr. Pinkerton, not aware of the nature of Mr. Pinkerton's mission, "there goes Crawford's launch now."

Landing at once, the detective waited for the launch to come to shore, which it presently did. The first man to come off was Marvin Crawford, whom Mr. Pinkerton recognized from a description, although he had never seen him. Then he saw Edward Crawford step off, dressed smartly in a white helmet hat, a red sash, a fine pleated linen shirt, blue trousers, patent leather shoes, and so on. Mr. Pinkerton approached and held out his hand.

"I don't remember you," said Crawford, but his face went white.

"You used to know me in New York when I examined you before the bank officials," said the detective pleasantly.

Crawford smiled in a sickly way and said: "Oh, yes; I remember you now."

Mr. Pinkerton explained that he had travelled five thousand miles to talk with him about the stolen money package. Crawford expressed willingness to furnish any information he could, and invited Mr. Pinkerton to go up to his plantation,

where they could talk the matter over more comfortably. Seeing that his best course was to humor Crawford, Mr. Pinkerton consented, though realizing that he thus put himself in Crawford's power. They went aboard Crawford's launch and steamed up the river, a very narrow, winding stream, arched quite over through most of its length by the thick tropical foliage, and in some parts so deep that no soundings had yet found bottom. The plantation was entirely inaccessible by land on account of impassable swamps, and the crooked course of the river made it a journey of twenty-three miles from Punta Gorda, although in a straight line it was only six miles away.

Mr. Pinkerton was surprised at the unpretentious character of the house, which was built of cane and palm stocks and roofed with palm branches. Originally it had been one large room, but it was now divided by muslin sheeting into two rooms, one at either end, with a hall in the middle. Almost the first thing Mr. Pinkerton noticed on entering was a fireproof safe standing in the hall. It was of medium size and seemed to be new. He knew he was powerless, under the laws of the country, to search the safe, but he made up his mind that while he was in the house he would keep his eyes as much as possible upon it. That night he did not sleep for watching. But Crawford did not go near the safe until the next morning, when he went to get out some account-books. While the door was open Mr. Pinkerton saw only a small bag of silver inside, but he felt sure from Crawford's manner that there was a larger amount of money there.

MR. PINKERTON AND CRAWFORD HAVE A LONG TALK.

Mr. Pinkerton remained at the plantation for forty-eight hours. On the second day he had a long interview with Crawford, questioning him in the greatest detail as to his connection with the robbery. Crawford persisted in denying that he had had any connection with it, or had any knowledge as to what had become of the stolen money. Argue as he would, Mr. Pinkerton could not beat down the stubbornness of his denials. All direct approaches failing, at last he tried indirection. He spoke of Burke, the absconding State treasurer of Louisiana, who, along with a number of other American lawbreakers, had fled to Central America. "Burke had a level head, hadn't he?" said he.

"How do you mean?" asked Crawford.

"Why, in going to Spanish Honduras. You know the United States has no extradition treaty there under which we could bring back a man who has absconded for embezzlement or grand larceny. Burke is as safe there as if he owned the whole country."

"Is that so?" said Crawford, looking significantly at his brother Marvin, who was present.

"Yes," said Mr. Pinkerton, "it is. I only wish the fellow would come up here into British Honduras; then we might do something with him."

Here the subject was dropped.

Next Mr. Pinkerton exhibited to Crawford a sealed letter written by James G. Blaine and addressed to the chief magistrate of British Honduras, pointing to the seals of the State Department to assure Crawford of the letter's genuineness, and hinting mysteriously at the use he proposed making of this document and at the probable effect that would follow its delivery.

With this the interview closed, and Mr. Pinkerton announced his intention of going back to Punta Gorda. Crawford had practically told him to do his worst, and he had not concealed his intention of doing it. Nevertheless their relations continued outwardly pleasant, and Mr. Pinkerton was treated with the hospitality that is usual in tropical countries. He saw no sign of any disposition on the part of either of the Crawfords to do him harm, but he kept his revolvers always ready, and gave them no chance to catch him napping.

Toward evening of the second day Crawford and his brother got the launch ready, and took Mr. Pinkerton down the river back to Punta Gorda, where they said good-by. At parting Crawford made a brave show of treating the whole matter lightly. "I may see you in New York in a couple of months," he said to the detective as they shook hands.

"If you see me in New York," said Mr. Pinkerton, "you will see yourself under arrest."

On landing, Mr. Pinkerton proceeded, with all the obviousness possible, to call at the house of the British magistrate, which was so situated that Crawford from the launch could not fail to see him enter. This seems to have confirmed the impression he had been striving to create, that British Honduras, though in truth a per-

fect refuge for a criminal like Crawford, was none. Crawford, apparently thoroughly frightened, and thinking he had not an hour to lose, steamed back in all haste to his plantation; gathered together, as subsequently appeared, his money and other valuables; and then, under cover of night, dropped down the river again, put out to sea forthwith, and crossed the Bay of Honduras to Puerto Cortés, in Spanish Honduras, the country of all Central America in which Mr. Pinkerton preferred to have him. In short, Mr. Pinkerton's stratagem had worked perfectly.

THE PURSUIT INTO SPANISH HONDURAS.

Mr Pinkerton's reason for wishing to get Crawford into Spanish Honduras was not because the treaty arrangements were more favorable there than in British Honduras, but because the Pinkerton agency enjoyed unusual personal relations with the Honduras government. Several years before, when President Bogram had in contemplation the federation of Central American States under one government, he had applied to the Pinkerton agency for reliable detectives for secret service work. In consequence of this the present head of the Honduras secret force was no other than a former Pinkerton employee who had been recommended by the New York office to the Honduras government, and upon whom Mr. Pinkerton knew he could rely absolutely. Another man equally disposed to favor him was Bert Cecil, a member of the cabinet, and at the head of the telegraph service, and thus in a position to render most valuable service in the apprehension of Crawford.

As soon as Mr. Pinkerton learned of Crawford's flight, he hurried in pursuit, crossing the bay to Livingston, in Guatemala. In so doing he risked his life, first by putting out to sea in a little dory, and then by trusting his safety to a treacherous Carib boatman, who, when they were several miles out, evinced a strong disposition to take possession of the detective's overcoat, in order, as he explained with a cunning look, to turn its silk lining into a pair of trousers. At this, Mr. Pinkerton carelessly produced his revolver, which had a quieting effect upon the fellow, and the voyage was completed in safety. But soon after landing, Mr. Pinkerton suffered an attack of fever, and being warned by the doctors to return to a northern latitude, he got the government machinery in motion for the apprehension of Crawford, had photographs of the former bank messenger spread broadcast through the country, and then having cabled the New York bureau to send responsible detectives to take his place, he sailed for New Orleans.

Mr. Pinkerton was succeeded in Central America by detective George H. Hotchkiss, one of the best men in the country, who arrived in Belize on the 18th of March. A telegram from Pinkerton's former employee, now chief of the secret police in Honduras, informed him that Crawford had been seen in San Pedro, Spanish Honduras, on the previous Saturday, and was being closely pursued by Spanish soldiers accompanied by Pinkerton men. Hotchkiss sailed at once for Puerto Cortés, where he learned from the American vice-consul, Dr. Ruez, that Crawford had left San Pedro hastily the previous Monday night. On further investigation the detective discovered that a San Francisco bully and former prize-fighter, "Mike" Neiland, had called at Crawford's boarding-house on Monday, and warned him that detectives were pursuing him from Puerto Cortés on a handcar. Neiland had pretended to be Crawford's friend, and said he would keep him out of the hands of the detectives. Crawford, very much frightened, grabbed up some of his luggage and left the house with Neiland. It was generally believed that Neiland had designs on Crawford's money, and would not hesitate to kill him, if need were, in order to get it.

Hotchkiss immediately requested Mr. Bert Cecil at Tegucigalpa, the capital, to cover all telegraphic points, and, if possible, have Crawford and his companion arrested on some trivial charge. The day after he reached San Pedro, on March 22d, he received a telegram saying that Crawford and Neiland had been arrested and taken before the governor at Santa Barbara. They had been searched, and about thirty-two thousand dollars had been found on Crawford's person. The money was in old and worn bills that in every way resembled those in the stolen package. Whether they were the identical bills or not, it was impossible to say, as the bank had not recorded the numbers.

On receipt of this news Hotchkiss, accompanied by Jack Hall, a guide, set out across the country for Santa Barbara. The journey was accomplished, but only after the most terrible suffering and many privations and dangers. Moreover, the fever got its deadly clutches upon detective Hotchkiss, and when he had finally dragged himself into Santa Barbara he cabled the New

York office, "Crawford and money held for extradition. Am sick. Cannot remain. Coming on steamer Tuesday. My associate takes charge."

CRAWFORD'S CONFESSION.

Before sailing for New Orleans detective Hotchkiss had an interview with Crawford, in the presence of the Spanish officials, and obtained from him a written confession of his guilt. While admitting that he had been a party to the robbery, the absconder tried to lessen his own crime by declaring that the plan to plunder the bank had been suggested to him by two men, named Brown and Bowen, whom he had met accidentally on a railway train in New York, and with whom he had afterwards become very friendly. These men had taken him to Brown's house on Thirty-eighth Street, somewhere between Eighth and Ninth Avenues (Crawford could not locate the place more precisely), and introduced him to a fine-looking woman presented as Mrs. Brown, who was also in the conspiracy. They told him that he was earning very little money for a man in such a responsible position, and that he might easily make a fortune if he would put his interests in their hands and be guided by their advice.

The outcome of several conversations was a plan to get possession of a valuable money package on some day when Crawford should know a large sum was to be sent away from the bank. He claimed that on the day of the robbery one of his fellow-conspirators, Bowen, followed behind himself and Earle after they entered the Adams express offices, and managed to substitute a bogus package for the real one while the two messengers were going up the stairs. He did not make this attempt until he saw the bank detective McDougal turn back up Broadway. Crawford said that he managed it so as to precede Earle in going up the stairs, which gave Bowen, who was standing at the first turn, in the shadow, an opportunity to open the satchel and quickly make the substitution. Crawford declared that the conspirators gave him only twenty-five hundred dollars as his share of the booty, although promising him more. This sum he put in two envelopes and sent to his aunt, the one to whom he afterwards intrusted the package supposed to contain gloves.

Crawford stated further that Brown and Bowen, having been forced to flee the country, sent him word from Paris, some time later, in a letter written by Mrs. Brown, that the greater part of the stolen money had been buried in a flower-bed in the southeast corner of a yard on West Thirty-eighth Street, and asked him to dig it up and send it to them. A remarkable fact in this connection is that the yard referred to on West Thirty-eighth Street belonged to the house of the friend and benefactor with whom Crawford was living at the time of the robbery.

Crawford claimed to have carried out these instructions, and deposited the package of money taken from the flower-bed in the safe-deposit vaults in the Fifth Avenue Hotel building, where, as a matter of fact, he was known to have rented a box. He gave as his reason for not sending the money to Paris that he was in trouble himself, being under constant surveillance, and thought it best to keep the money secreted for the time. He admitted that he had carried this money with him to Honduras, and that it was the same found on his person by the detectives. By his description of Brown and Bowen, the former was a man about twenty-five years old, of slight build and light complexion, while the latter was ten years older, two or three inches taller, with a sandy moustache and very fat hands. Mrs. Brown, Crawford described as about twenty-five years old, a blonde, with regular features. He had no idea what had become of these people since he left America, having had no further communication with them. None of the alleged conspirators has ever been found, and they are believed to be purely mythical.

Detective Hotchkiss also had an interview with "Mike" Neiland, Crawford's companion in flight, who described his first meeting with Crawford at his boarding-house in San Pedro, and acknowledged that he had deliberately frightened Crawford into running away by his story of the pursuing detectives. He described their adventures and hardships in trying to escape over the rough country, the difficulties they experienced in buying mules, their sufferings from exposure in the swamps, and finally their capture by the soldiers. Neiland said that Crawford gave him three thousand dollars in fifty-dollar bills, and also allowed him to carry, a part of the time, a large package wrapped in oilcloth paper and sewed up tightly. Crawford had told him to throw this package away rather than let any one capture it, for, he said, it contained money which would send him to prison if found upon him.

ADAMS EXPRESS COMPANY'S OFFICE. LOADING MONEY SAFES AND OTHER CASES INTO WAGONS, FOR TRANSPORTATION TO THE TRAINS.

As they pushed along in their flight Crawford declared repeatedly that he would put an end to his life rather than be taken prisoner, and when the soldiers surrounded them he drew his revolver and tried to blow his brains out. One of the soldiers, however, was too quick for him, and struck the weapon out of his hand. After the capture Crawford vainly tried to bribe the guards to let him escape, offering them as much as ten thousand dollars. When the large package was opened it was found to contain bundles of bills sewed together with black thread, and with about a dozen rubber bands wrapped around them, and a stout covering of buckskin under the oiled paper. The money amounted to thirty-two thousand, five hundred dollars, all in United States bills—fives, tens, twenties, fifties, and hundreds, but mostly fives. Ultimately the money was returned to the American Exchange Bank.

When organizing the pursuit of Crawford, detective Hotchkiss had arranged with the Honduras government that any letters and telegrams that might come addressed to the absconder should be delivered to him. Several letters were thus secured from the young man about town in New York who had befriended Crawford so constantly in the past, and who seemed now disposed to stand by him even in adversity and disgrace. The letters contained counsel and reproaches, and seemed to indicate that relations of unusual familiarity had existed between the two men. Besides these letters two cablegrams were intercepted from the same source, both being sent through an intermediary. The first was dated March 15, 1890, and read: "Tell Crawford go back. Papers bluff. No treaty exists." The second, sent two days later, read: "Inform Crawford will meet him in Puerto Cortés."

It is needless to say that the young man did not carry out his intention of joining Crawford in Honduras, for the same mail which would have brought him Crawford's

reply carried the startling news that his *protégé* and friend was under arrest in Santa Barbara, a self-confessed bank robber.

CRAWFORD ESCAPES.

The government of Honduras consented, thanks to their friendly relations with the Pinkertons, to deliver Crawford over to one of the representatives of the agency, and superintendent E. S. Gaylor, who had meantime replaced detective Hotchkiss, took him in charge. A guard of Spanish soldiers brought the prisoner to Puerto Cortés, where he was placed in a hotel, pending his transfer to a vessel sailing for the United States. Superintendent Gaylor himself was present to see that everything was managed properly, and he was seconded in his oversight by the former Pinkerton employee, the head of the secret police in Honduras. The final arrangements had been made, the government having taken advantage of a law authorizing the expulsion of "pernicious foreigners" in order to get rid of Crawford. The superintendent had actually taken passage for himself and Crawford, and selected berths on an American vessel that was to sail on the morning of May 2, 1890; but the night before, Crawford made his escape from the hotel, going without the money, which remained in the detective's keeping. How he escaped is still a matter of conjecture. The hotel stood on the water's edge, and from a balcony to which Crawford had access he may have managed to spring down to a wall built on piles. From there he may have reached the hotel yard at the back and escaped over one of the picket fences that separated the hotel from the adjoining property. There is also a possibility that the Spanish soldiers were bribed, but this has never been proved, and is scarcely probable, as Crawford at the time of his escape had not more than seventy-five dollars in Honduras bills in his possession.

During the following days and weeks untiring efforts were made to recapture him. The swamps were searched for miles, and soldiers were sent out in all directions. Mr. Gaylor believed that Crawford succeeded in making his escape into Guatemala, which was only thirty miles distant. He was undoubtedly assisted in his escape by the fact that people in the surrounding region sympathized strongly with him and would have done anything in their power to conceal him from his pursuers. At any rate, the man was never recovered.

Five years have passed since Crawford's escape, and all this time he has been left undisturbed in Central America, where he has been frequently seen by people who know him, and where he seems to be thriving. At last accounts he and his brother were engaged in business on one of the islands in the Mosquito Reservation of Nicaragua, where they were regarded as dangerous men by the government, likely to incite revolution. So strong was this feeling on the part of the Nicaraguan officials, that some years ago advances were made to the United States government to have Crawford surrendered, the Nicaraguan officials, declaring that they would gladly give him up if a demand for his extradition was made by the proper authorities in Washington. For some reason the demand has never been made, and probably never will be.

Immediately after Crawford had made confession, the American Exchange Bank, realizing that there was no longer any doubt that the robbery was committed by one of its employees, voluntarily refunded to the Adams Express Company the forty-one thousand dollars that had previously been paid to it by the company, together with interest thereon for two years and a large part of the expenses. Therefore the only complainant in the case now available would be the bank officials, who for some reason have seen fit to let the matter drop.

HOW THE ROBBERY WAS PROBABLY COMMITTED.

Mr. Pinkerton's theory of the way in which this robbery was committed is that Crawford had an accomplice who had previously prepared the bogus package, and who, by previous appointment, was standing on the stairs in the express office when the two messengers arrived. It has always been a question in Mr. Pinkerton's mind whether the old man "Dominie" Earle told the exact truth in his testimony before the bank officials. Not that he suspected Earle of having been implicated in the crime, but he has wondered whether Earle might not have been simply negligent to the extent of leaving Crawford in sole possession of the valise at some time after they entered the office. There is no doubt that Earle was very anxious to catch a four o'clock train at one of the New Jersey ferries, in order to get home early. He may, in his haste, have allowed Craw-

ford to go up-stairs with the valise unaccompanied.

This would explain how Crawford found opportunity to open the valise and make substitution of the bogus for the genuine package. Assuming that the accomplice was standing at a turn of the stairs, which are winding and rather dusky, it is perfectly conceivable that such a change of packages might have been effected with scarcely a moment's delay.

But consenting that Earle told the exact truth, he admitted that he lingered behind Crawford a little in ascending the stairs, and in so doing he may have furnished sufficient opportunity for the substitution. An old man going up rather steep stairs naturally bends his head forward to relieve the ascent, and in such position he might fail to see what a man close in front of him even was doing. The trouble with this theory is that it supposes the label on the bogus package to have been a forgery.

There is still another theory suggested by Mr. Pinkerton, to account for the presence of the bogus money package in the valise when the two messengers reached the counter of the receiving department. It is that Crawford's confederate had provided himself with a second valise, similar in all respects to the one used by the bank, and that in this had been placed the bogus package with a forged label, making the substitution a matter of merely changing valises, which could have been accomplished in a second. It has also been suggested that Crawford might have managed the whole scheme himself, by having prepared a valise like the one he carried daily, arranged with two compartments, in one of which was placed the genuine package received from the paying teller at the bank, while out of the other compartment was taken at the express office a bogus package previously placed there. What makes it the more reasonable to suppose that Crawford accomplished the theft single-handed, is the fact that when arrested in Honduras the bulk of the stolen money was found on his person, while it was known that in addition to the thirty-two thousand dollars then recovered he had previously spent considerable sums in various ways. His voyage, for instance, must have been expensive, and it was found that he had given at various times to members of his family sums ranging from twenty to fifty dollars. This would have left out of the original forty-one thousand dollars a very meagre remuneration for a confederate.

Perhaps the most reasonable explanation of the robbery lies in the assumption that "Dominie" Earle, honest, but simple-minded, did not go up-stairs at all with Crawford, but left him at the foot of the stairs, influenced by his eagerness to get home. Granting this supposition, what would have been easier than for Crawford, left alone at the foot of the stairs, to have turned back with the valise and gone into the back room of some neighboring saloon, or other convenient place, where he could manipulate the label and substitute the bogus package? There is reason to think that the bogus package had been prepared weeks before, which would have accounted in a measure for its worn and slovenly appearance. The time occupied in doing all this need not have been over fifteen minutes, which would not have been noticed at the bank, especially as the robbery occurred after banking hours. It is highly improbable, however, that Crawford could have accomplished the substitution on the stairs of the express office, for, while these are winding and somewhat in the shadow, they are by no means dark, and are plainly in view of clerks and officials who are constantly passing. Besides that, Crawford could not have carried the dummy package concealed about his person without attracting attention, for the original package was quite bulky, being about twenty inches long, twenty inches wide, and fourteen inches thick. The bogus package was not quite so thick and more oblong, but could not easily have been hidden under a man's coat. Finally, even supposing Crawford did carry the bogus package with him in some manner, he would never have dared to expose himself to almost certain detection by cutting off the label from the genuine package, pasting it on the bogus package, placing the latter in the valise, and hiding the genuine one in his clothes, and doing all this on the busy stairs of an express office where at that hour of the day a dozen men are going up and down every minute.

The sum of all these theories is, however, that in spite of the fact that the author of the robbery is known and the bulk of the money has been recovered, the manner of the robbery is to this day a mystery.

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